



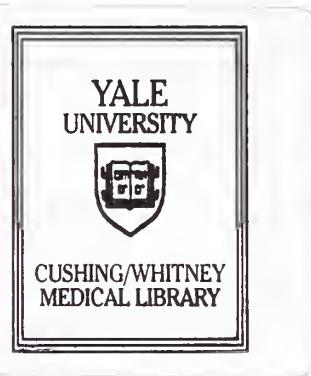
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GRADING THE REPORT CARD

**AN INVESTIGATION OF CONSUMER-DIRECTED
INFORMATION DISCLOSURE AS THE BASIS
OF QUALITY ASSURANCE SYSTEMS
IN HEALTH CARE REFORM**

JASON ROSS PENZER

1996





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**Grading the Report Card: An Investigation of Consumer-Directed
Information Disclosure as the Basis of Quality Assurance Systems
in Health Care Reform**

A Thesis Submitted to the
Yale University School of Medicine
in Partial Fulfillment of the Requirements for the
Degree of Doctor of Medicine

by

Jason Ross Penzer

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GRADING THE REPORT CARD: AN INVESTIGATION OF CONSUMER-DIRECTED INFORMATION DISCLOSURE AS THE BASIS OF QUALITY ASSURANCE SYSTEMS IN HEALTH CARE REFORM.

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Abstract

This thesis investigates the hypothesis that consumer-directed quality information dissemination, in the form of health care report cards, is practically, technically, and theoretically inappropriate as the foundation of quality assurance systems in health care reform. The investigator examines the emergence of consumer-directed information disclosure proposals in the public health care reform debate and in the private sector. By drawing on the literatures of cognitive psychology, marketing, existing statutory information disclosure, and case studies of current report card efforts, the author reveals the pitfalls of relying on health care report cards as a quality assurance system. The research supports the hypothesis and the investigator concludes that despite their rising popularity in legislative reform and the private sector, report cards cannot currently assure quality, given limitations in the state of the art of quality measurement and ignorance about the ways in which consumers would process disclosed information.

The overriding hypothesis of this thesis, which is ultimately supported by the research, is that consumer-directed quality information dissemination, in the form of health care report cards, is practically, technically, and theoretically inappropriate as the foundation of quality assurance systems in health care reform. In organizing the discussion explaining the acceptance of the overall hypothesis, the investigator addresses six sequential working hypotheses. These state:

1. That report card systems are the cornerstones of recent federal and state legislative/regulatory initiatives and private sector efforts to reform quality assurance programs in health care.
2. That technological limitations make the implementation of report card systems problematic in the short term.
3. That report card-based quality assurance systems entail significant direct and hidden costs to health care providers and health care institutions that undermine their efficacy.
4. That evidence from the disciplines of cognitive psychology

and marketing shows that even well constructed, technically sound health care report cards would yield fatally flawed quality assurance systems.

5. That severe knowledge deficits regarding the useful content of health care report cards and confusion between ensuring consumer satisfaction and measuring quality renders them inappropriate as quality assurance tools at this time.

6. That recent experience with consumer-directed technical information dissemination programs in consumer credit and food nutrition labeling supports the conclusions of hypotheses 1-5.

The acceptance of these six sub-hypotheses is the basis for the acceptance of the main hypothesis of this thesis, that consumer directed quality information dissemination, in the form of health care report cards, is practically, technically, and theoretically inappropriate as the foundation of quality assurance systems in health care reform.

Methods

The investigator examined an extensive number of primary and secondary sources in the course of this research, all of which are footnoted specifically throughout the discussion sections of the paper. The primary sources included the text of numerous federal and state legislative bills, agency

regulations, official commentaries, legislative debates, testimony before congressional committees, and critical commentary in the mainstream and specialty presses. Research into private sector report card programs involved analysis of internal corporate documents, balance sheets and financial statements for both managed care companies and individual hospitals, review of existing private report card programs, and examination of statements by corporate officers, hospital network executives, and individual providers involved with report card systems. Research into the technical obstacles to an effective report card system also involved extensive investigation of the state of the art in health care quality measurement, including review of recent efforts in outcomes measurement, clinical information systems, patient surveys, expert quality review, and computerized health care databases. A case study in state level report card programs, culled from extensive primary source research into the Pennsylvania Health Care Cost Containment Council activities, yielded valuable data on the bureaucratic, financial, and technical pitfalls of current report card efforts. Research in the literatures of cognitive psychology and marketing shed necessary light on the basic flaws in the underlying theory of consumer-directed information disclosure as a quality assurance tool, especially in light of the information gaps in health care quality measurement and information inequalities between providers and consumers. Relying on the same classical economic theory that

proponents of consumer-directed information disclosure use to support report cards, the investigator reveals the disparity between assuring consumer satisfaction and assuring quality in health care.

Research into two analogous information dissemination efforts, in consumer credit and nutrition labeling, yields experiential data supporting the working hypotheses formulated for health care report cards and lends credence to the investigator's suggestions regarding the future of current report card efforts.

Given that the questions investigated during the course of this research pertain primarily to policy issues in health care reform, the thesis concludes with policy recommendations based on acceptance of the hypothesis that report card programs are inappropriate as quality assurance systems in health care.

Discussion

Introduction

Any investigation of policy questions in health care reform occurs in an environment of rapid change. Over the course of several years, months, and even days, political leaders change, agendas shift to accommodate new political realities and business climates, and yesterday's seminal idea becomes today's most recently discarded folly. In pursuing a

project of extended research in health care then, the investigator is faced with two particular dangers: first, that events will render the hypothesis itself moot, and second, that even his latest research will fail to incorporate today's latest developments.

Admittedly, this thesis presents a snapshot – albeit a carefully detailed and focussed one – of a rapidly evolving picture. Political circumstance has largely defined the temporal borders of that snapshot. The months leading up to the introduction of the Clinton Health Security Act in late 1993 thrust report card systems squarely into the public spotlight; state level and especially private sector initiatives have subsequently taken up the report card banner left floating in the wake of the Clinton plan's defeat. As the discussion below explains, this project clearly avoids the danger that changing circumstances have mooted the hypothesis. Even though the second danger – that important quality assurance initiatives and data are emerging with each passing day – is to some extent unavoidable, this thesis strives to be as current as deadlines allow and to identify areas where emerging data will impact the policy debate. A natural starting point then is the original emergence of report card proposals onto center stage in 1993.

After months of intense research by Hillary Rodham Clinton's semi-secret Task Force and political maneuvering by

the White House, President Bill Clinton announced his plan to reform the nation's health care system on Wednesday evening, September 22, 1993. In a televised address to the joint Houses of Congress, he proclaimed "a new chapter in the American story."¹ The President staked his plan on six "fixed stars": security, simplicity, savings, choice, quality, and responsibility. In describing the fifth star, quality, Clinton proposed to harness the opportunities of the "information age" and create "report cards" on health plans so that consumers could compare competing plans and reward high quality providers by selecting their plans.²

The report card proposal has outlived the Clinton Plan itself. The proposal's inclusion in subsequent reform agendas and its place at center stage in state level and private quality assurance programs demonstrate the powerful appeal report cards now have in health care delivery. Although the President and Congress eventually disagreed on the plot and ending of Clinton's "new chapter," the health care reform debate in the 103d Congress set the stage for a major movement in health care quality assurance. While Congress continues to consider reform bills that include report card systems and Medicaid/Medicare reform that encourages private sector

¹ Adam Clymer, *Clinton's Health Plan: The Overview*, N.Y. TIMES, Sept. 23, 1993, at A1.

² *Clinton's Health Plan: Transcript of President's Address to Congress on Health Care*, N.Y. TIMES, Sept. 23, 1993, at A24.



managed care and delegates responsibility to the states, both states and the private sector have already adopted consumer-directed quality information disclosure as the mantra of modern quality assurance.

This discussion section is divided into three parts, each of which addresses specific working hypotheses of this thesis. Part I examines Title V of Clinton's Health Security Act, subsequent reform bills, and private sector programs to determine what substance, if any, the proposed legislation and private actors give to the report card and what role different institutions in the health care system would play in its development. This section reveals that policymakers describe the concept of a consumer-directed information disclosure program, but not its substance. In fact, this section reveals that the private sector – composed largely of corporate employers, for-profit managed care companies, and private hospital networks – as the current driving force behind report card systems, is engaged in a chaotic, fragmented, unmonitored series of working experiments with various data measurement and reporting systems in an effort to dominate an emerging quality assessment industry. This section supports the hypothesis: 1) that report card systems are the cornerstones of recent federal and state legislative/regulatory initiatives and private sector efforts to reform quality assurance programs in health care.

Part II of the discussion section supports the working

hypothesis: 2) that technological limitations make the implementation of report card systems problematic in the short term; and 3) that report card based quality assurance systems entail significant direct and hidden costs to health care providers and health care institutions that undermine their efficacy. It describes the state of the art in health care quality measurement and current efforts to promote quality and control costs through consumer education. This discussion demonstrates that the limited science and prohibitive cost of quality measurement undermine the efficacy of a national report card proposal.

Part III supports the final three working hypotheses: 4) that evidence from the disciplines of cognitive psychology and marketing shows that even well constructed, technically sound health care report cards would yield fatally flawed quality assurance systems; 5) that severe knowledge deficits regarding the useful content of health care report cards and confusion between ensuring consumer satisfaction and measuring quality renders them inappropriate as quality assurance tools at this time; and 6) that recent experience with consumer-directed technical information dissemination programs in consumer credit and food nutrition labeling supports the acceptance of hypotheses 1-5. This section reviews data from the literatures of cognitive psychology, marketing, and researches the laws requiring information disclosure in order to develop an understanding of consumer information processing in health

care and other regulatory contexts. This section then explores in detail two existing efforts to improve quality, empower consumers, and modify consumer and industry behavior through information strategies: nutrition labeling under the Nutrition Labeling and Education Act (NLEA)³ and credit cost term disclosure under the Truth In Lending Act (TILA)⁴ and the Truth In Lending Simplification and Reform Act (TILSRA).⁵ Ultimately, the uncertainty of consumer response to information disclosure proves that report cards are not a reliable quality assurance mechanism. The acceptance of the six working hypotheses reveals that report cards are practically, technically, and theoretically inappropriate as the foundations of quality assurance systems in health care reform.

I. Competition, Consumer Satisfaction, and Quality Control in Health Care Reform Legislation: The Report Card

Six weeks after President Clinton first announced his

³ Nutrition Labeling and Education Act, Pub. L. No. 101-535, 104 Stat 2353 (Nov. 8, 1990) (codified at 21 U.S.C. § 343-1 and in scattered sections of 21 U.S.C.). 21 U.S.C. § 301 gives the legislative genealogy and short title for the NLEA.

⁴ Truth In Lending Act, Pub. L. 90-321, § 101, 82 Stat. 146 (1968) (codified as amended at 15 U.S.C. § 1601) (enacted as Title I of Consumer Credit Protection Act, Pub. L. 90-321, 82 Stat. 146 (1968) (codified as amended in scattered sections of 15 U.S.C.)).

⁵ Truth In Lending Simplification and Reform Act of 1980, Pub. L. 96-221, 94 Stat. 168 (codified as amended at 15 U.S.C. § 1601 (1993)).

intention to overhaul the health care system, the Administration ceremoniously "relaunched" its plan with the public release of the 1,342 page bill on October 27, 1993.⁶ On Saturday evening, November 20, the bill was formally presented to the House and Senate with considerably less fanfare, signalling the beginning of a grueling legislative battle. Former House Majority Leader Richard Gephardt introduced the Health Security Act (HSA) as H.R. 3600 with ninety-nine cosponsors, and Former Senate Majority Leader George Mitchell did likewise for S. 1757 along with thirty fellow senators.⁷

The subsequent rise and fall of health care reform in the 103d Congress has been an oft told tale. For the purposes of this discussion, it need only be noted that after its much celebrated introduction, the Clinton bill rapidly lost momentum, and several important competing plans emerged in Congress. Legislators failed to reach consensus on any of these proposals, and by September 26, 1994, Senator Mitchell declared health care reform dead for the year. The Administration and influential members of Congress quickly

⁶ Timothy J. McNulty, *The Clintons' 1,342-Page Prescription*, CHI. TRIB., Oct. 28, 1993, at N1.

⁷ The Health Security Act appears as H.R. 3600, 103d Cong., 1st Sess. (1993), and as S. 1757, 103d Cong., 1st Sess. (1993) [hereinafter cited to original sections of the Health Security Act (HSA)]. See also 139 CONG. REC. E2989 (daily ed. Nov. 21, 1993) (extension of remarks by Rep. Gephardt, introducing H.R. 3600); 139 CONG. REC. S16787 (daily ed. Nov. 20, 1993) (statement of Sen. Mitchell, introducing S. 1757).

vowed to reintroduce new legislation in the 104th Congress. The focus of the Republican 104th Congress in health care has largely involved proposed reform of the Medicare and Medicaid programs. As part of the emphasis on cost cutting from these programs, the 104th Congress has endorsed the enrollment of program beneficiaries into private managed care systems. Although the momentum of this transition to privately administered managed care has stalled with the 1996 budget impasse, the delegation of responsibility for managing health care and with it quality assurance to the private sector is a *fait accompli*.

The demise of the Clinton plan does not undermine the importance of assessing report card proposals. As even a brief survey of major alternative reform plans and private sector initiatives reveals, report cards are part of the agenda. Whatever legislative reform ultimately emerges will almost certainly, and uncritically, sanction and expand report card use. Moreover, state governments and regulatory agencies at all levels have taken the signal from the Clinton plan debates and subsequent calls for managed care. Report card programs are already centerpieces of state-level health reform and regulatory experimentation. Finally, the private sector has enthusiastically seized on the report cards' promise of increased price competition, quality monitoring, and consumer empowerment. In their rush to develop report cards, private accreditation agencies, health plans, and major corporations

have created, virtually overnight, a vast information-processing and distribution industry for health care provision.

A. *The Clinton Plan*

While many of the bureaucratic structures described in the Clinton plan have been discarded, careful analysis of the original Clinton bill provides not only a blueprint of a prototypical legislative report card system and a glimpse at the theory behind report card-based quality assurance, but also a greater understanding of the goals that policymakers at all levels expect to achieve with report cards. Consumer-directed information disclosure played a central role in the Administration's efforts to create a quality improvement program and control costs; informed, comparison-shopping consumers were expected to spur price and quality competition among plans. Among the six explicitly enumerated purposes of the HSA, four related directly to the quality reporting system: "to simplify the health care system for consumers," "to control the cost of health care," "to promote individual choice among health plans and health care providers," and "to ensure high quality health care."⁸

Title V of the HSA addressed quality and consumer protection. Sections 5001-5002 create a National Quality

⁸ Health Security Act, *supra* note 7, § 3.

Management Program under the seven member National Health Board. A fifteen member National Quality Management Council would have administered the program.⁹ Both National Health Board and National Quality Management Council members were to be appointed directly by the President, National Health Board members being selected on the basis of their experience and expertise in the fields of medicine, health care financing and delivery, state health systems, consumer protection, business, law, and delivery of care to vulnerable populations.¹⁰ National Quality Management Council members would include representatives from corporate purchasers of health care, health plans, the States, health care providers, academic health centers, and experts in public health, health care quality, and health services research.¹¹

Although the HSA established an impressive administrative structure to support the National Quality Management Program, it gave the National Health Board almost no guidance as to the content of the program itself. The statute required that the National Quality Management Program be "designed to enhance the quality, appropriateness, and effectiveness of health care services and access to such services."¹² To that end,

⁹ HSA §§ 5001-5002. HSA § 1501 creates the National Health Board.

¹⁰ HSA § 1502.

¹¹ HSA § 5002.

¹² HSA § 5001.

section 5003 instructed the National Quality Management Council to develop a "set of national measures of quality performance, which shall be used to assess the provision of health care services and access to such services." In consultation with the states, health plans, employers, individual consumers, providers, the newly formed National Quality Consortium, experts in law, medicine, economics, public health, and health services research, the administrator for Health Care Policy and Research, the Director of the National Institute of Health, and the Administrator of the Health Care Financing Administration, the Council was instructed to select measures providing information on six subjects: access to health care services, appropriateness of services provided, outcomes of health care services and procedures, health promotion, prevention of diseases, and consumer satisfaction. Measures of quality performance were to be selected on the basis of significance (in terms of the "prevalence, morbidity, mortality, or . . . costs" associated with the prevention, diagnosis, treatment, or clinical management of the disease), reliability and validity, variation among providers, linkage to health outcomes under provider control, and relation to public health goals. In addition, section 5003 stipulated that the set of measures chosen was to be representative of the range of services provided to consumers of health care and based on data "obtain[able] without undue burden on the entity or individual

providing the data." The Council was instructed to annually update the national quality-performance measures.¹³ In areas where sufficient information and consensus were found to exist, the National Quality Management Council was instructed to recommend that the National Health Board establish performance goals for health plans and providers.¹⁴

Consumer surveys played an important role in the HSA's information gathering efforts. Section 5004 instructed the National Quality Management Council to conduct periodic surveys of consumers to gather data on access, use of services, health outcomes, and patient satisfaction. The surveys were to be standardized and administered by the Administrator of the federal Agency for Health Care Policy and Research on a plan-by-plan basis.¹⁵

The HSA created additional bureaucratic players in the quality improvement program: Regional Professional Foundations, alliances, and a National Quality Consortium. The National Health Board was to appoint eleven members to the Consortium, five representing academic health centers, and the other six representing schools of public health, medical schools, nursing schools, and allied health professional schools.¹⁶ In addition to advising the National Quality

¹³ HSA § 5003.

¹⁴ HSA § 5005.

¹⁵ HSA § 5004.

¹⁶ HSA § 5009.

Management Council on the selection of national quality measures, the Consortium was to oversee the establishment of the Regional Professional Foundations. The latter were then to develop "innovative patient education systems that enhance patient involvement in decisions relating [to] their health care."¹⁷ The alliances were to "disseminate to consumers information relating to quality and access to aid in their selection of plans" and conduct educational programs to "assist consumers in using quality and other information in choosing health plans."¹⁸

Under section 5013, the legal and financial burden of measuring and producing the data required by the new federal bureaucracy, the States, and the individual alliances would have fallen on individual health plans. These plans were required to maintain quality management systems that used the national measures of quality performance and "measure[d] the quality of health care furnished to enrollees under the plan by all health care providers who are members of a provider network of the plan."¹⁹

To facilitate data collection, the HSA proposed the creation of a massive data bank and electronic health information system within two years of the Act's passage.²⁰

¹⁷ HSA § 5008.

¹⁸ HSA § 5012.

¹⁹ HSA § 5013.

²⁰ HSA §§ 5101-5106.

This unprecedented national health information system would have combined cost, enrollment, demographic, utilization review, quality, grievance, and financial data with any other type of information deemed appropriate by the National Health Board. This effort would have dwarfed the only other national data bank in the health care sector, the oft-criticized National Practitioners Databank, created in 1986 by the Health Care Quality Improvement Act.²¹

Once this extensive array of individual, institutional, and bureaucratic actors had defined national quality measures and collected relevant data, a herculean feat in itself, there would have remained the more significant task of using that data to promote quality care, provider and consumer education, and cost control.²² Public education under the HSA would

²¹ Health Care Quality Improvement Act of 1986, 42 U.S.C. §§ 11101-52 (Supp. 1993). See Elisabeth Ryzen, *The National Practitioner Databank: Problems and Proposed Reforms*, 13 J. LEGAL MED. 409 (1992) (arguing that data bank gathers erroneous and marginally relevant information, inadequately safeguards confidentiality, and costs more than its benefits justify; also recommending that amendments expanding its scope should be repealed, only extremes of malpractice payments in number and amount should be reported to strengthen the link incompetence to settlements and awards, reporting criteria for resident physicians should be restricted, and data bank should be purged every five years); Susan L. Horner, *The Health Care Quality Improvement Act of 1986: Its History, Provisions, Applications and Implications*, 16 AM. J. LAW & MED. 455 (1990).

²² This thesis focuses only on the quantity, type, and content of the information directed towards health care consumers and on how consumers process and act upon that information. Similar issues and questions could be raised for providers, health care institutions such as hospitals or nursing homes, academic health centers, and health plans.

have proceeded at two levels: one aimed at consumers, the other at patients. The first level, termed here the "point of insurance" choice, would have involved educating consumers about the options faced when selecting a health plan each year. An individual consumer at this level might or might not have been a "patient," that is, a party already involved with the health care system on a regular basis due to an ongoing illness or condition. The second level, termed the "point of treatment" choice, would have involved educating "patients" about specific diseases, conditions, and treatment options that they might encounter at specific times in their medical histories.

There would have been two principal outlets for all the information collected by the National Health Board and National Quality Management Council: performance reports (report cards)²³ and practice guidelines.²⁴ Performance reports would have addressed yearly point of insurance choices. Practice guidelines, directed towards consumers as well as providers, would have addressed the point of treatment choices.²⁵ While the creation, dissemination, and

²³ HSA, *supra* note 7, §§ 1325, 5005, 5012.

²⁴ HSA § 5006.

²⁵ Practice guidelines are available from the Department of Health and Human Service's Agency for Health Care Policy Research (AHCPR) for a number of conditions. Simplified versions are published for patients, while detailed guidelines are provided to physicians. See AHCPR, U.S. DEP'T OF HEALTH AND HUMAN SERVICES, PRACTICE GUIDELINE No. 8, BENIGN PROSTATIC HYPERPLASIA: DIAGNOSIS AND TREATMENT (1994) and AHCPR, U.S. DEP'T OF

application of practice guidelines were fundamental to the Quality Program and deserve thorough consideration, this thesis focuses only on report cards.²⁶

The report card proposal derived from two separate sections of the HSA. Section 5005(c) outline the yearly performance reports. Alliances would:

publish and make available to the public a performance report outlining in a standard format the performance of each health plan offered in the alliance on the set of national measures of quality performance. The report shall include the results of smaller numbers of such measures for health care providers who are members of provider networks of such plans . . . if the available information is statistically meaningful. The report also shall include the results of consumer surveys . . . that were conducted in the alliance during the year that is the subject of the report.

The National Quality Management Council was to compile all

HEALTH AND HUMAN SERVICES, PRACTICE GUIDELINE No. 8, TREATING YOUR ENLARGED PROSTATE: CONSUMER VERSION (1994) .

²⁶ For an enlightening piece on how providers make decisions based on available probabilistic information, see David M. Eddy, *Probabilistic Reasoning in Clinical Medicine: Problems and Opportunities*, in *JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES* 249 (Daniel Kahneman et al., eds., 1982); see also David M. Eddy, *Variations in Physician Practice: The Role of Uncertainty*, *HEALTH AFFS.*, Summer 1984, at 74 (1984); Barry R. Furrow, *The Changing Role of the Law in Promoting Quality in Health Care: From Sanctioning Outlaws to Managing Outcomes*, 26 *HOUSTON L. REV.* 147, 164-66 (1989). The same quality measurement data that produces practice guidelines could also generate plan-wide information. Current outcomes research, for example, can uncover wide local variation in procedure use that might lead to the formulation of a practice guideline. Once the guidelines are in place, compliance could become useful as a plan quality indicator, if it is risk adjusted. See JoAnne Alter & David Holzman, *Interest in Outcomes Research Is Growing Rapidly*, in *Special Report, Putting Outcomes Research to Work*, *Bus. AND HEALTH*, 8 (Joseph Burns ed., 1992) [hereinafter Special Report].

these reports and consumer surveys into an annual report to Congress on plan performance and quality trends.²⁷

Section 1325, entitled Consumer Information and Marketing, set minimum content standards for the report card. Alliances were to make available "information, in an easily understood and useful form, that allows such enrollees . . . to make valid comparisons among health plans offered by the alliance." This was to be published in an annual brochure that would have included, in a standardized format, information required by the National Health Board, including, at a minimum, the following:

- (A) The cost of the plan, including premiums and average out-of-pocket expenses.
- (B) The characteristics and availability of health care professionals and institutions participating in the plan.
- (C) Any restrictions on access to providers and services under the plan.
- (D) A summary of the annual quality performance report . . . which contains measures of quality presented in a standard format.²⁸

B. *The Congressional Health Care Reform Bills*

All major reform bills introduced as alternatives to the Clinton plan relied on consumer-directed report cards as the major component of quality assurance. In this respect, Senator George Mitchell's bill, introduced in August 1994, was

²⁷ HSA, *supra* note 7, § 5005.

²⁸ HSA § 1325.

virtually identical to Clinton's.²⁹ The bill's Title V would have created a National Quality Council,³⁰ numerous Quality Improvement Foundations,³¹ and a National Center of Consumer Information and Advocacy.³² The National Quality Council would have established performance measures and goals³³ to be used in grading health plans for consumer report cards. The data gathering, analysis, and compilation functions at the heart of the report card system could then have been subcontracted through competitive bidding,³⁴ and the Consumer Information and Advocacy Centers would have distributed the finished product in each state. The Mitchell Plan's initial price tag for the National Quality Council, Quality Improvement Foundations, and Consumer Information and Advocacy Centers was more than \$2.4 billion over six years; all but \$24 million would have been available to subcontractors.³⁵

²⁹ S. 2357, 103d Cong., 2d Sess. (1994) [hereinafter Mitchell Plan]. Senator Mitchell's bill was also known as the Health Security Act.

³⁰ *Id.* § 5001.

³¹ *Id.* § 5008.

³² *Id.* § 5009.

³³ *Id.* §§ 5002-5003.

³⁴ *Id.* §§ 5001(o), 5004(b), 5008(b) (establishing a subcontracting option for the creation of the Quality Improvement Foundations).

³⁵ *Id.* § 5010. The appropriations breakdown for 1995-2000 is as follows: \$24 million for the national Quality Council, \$1.2 billion for the Quality Improvement Foundations, and \$1.2 billion for the Consumer Information and Advocacy Centers.

Another major reform proposal, introduced late in the debate by a bipartisan group of moderate Senators as an amendment to the Mitchell Plan, would have left Title V and the report card proposal intact.³⁶

Report card systems have been endorsed by both parties. Republican Senator John Chafee's Plan, while eschewing some of the bureaucracy proposed in other plans, would have required state programs to prepare price, outcomes, satisfaction, and quality data for consumers.³⁷ Senate Minority Leader Bob Dole's plan would have required each state to develop a "consumer value program" that would issue a report card according to guidelines established by the Secretary of Health and Human Services. States could have subcontracted the administration of these consumer value programs to private entities.³⁸ The Cooper-Breaux Plan (HR 3222, S 1579) and the Wellstone-McDermott bill (HR 1200, S 491) also required dissemination of quality information and publication of consumer satisfaction rates.

³⁶ The so-called Mainstream Coalition plan, introduced by Senators Chafee(R) and Breaux(D) focused primarily on changes in finance and coverage.

³⁷ S. 1770, § 1405, 103d Cong., 2d Sess. (1994) [hereinafter Chafee Plan].

³⁸ S. 2374, §§ 21012, 21102, 21103, 103d Cong., 2d Sess. (1994) [hereinafter Dole Plan]. § 21102 mentions that the Secretary should consult with the National Committee for Quality Assurance, see *infra* text accompanying note 43, Joint Commission on the Accreditation of Healthcare Organizations, see *infra* text accompanying note 42, and other appropriate organizations in formulating the guidelines for the report cards.

Although Congress did not pass any of these specific bills, the reliance on report card systems as pillars of market reform and quality assurance now extends across the political spectrum. Despite the recent retreat from extensive federally legislated health care reform, the significance of this bipartisan support for report card systems should not be underestimated. The willingness of political leaders to support report card efforts has spurred states and the private sector to adopt consumer-directed information disclosure as the quality assurance program of choice. While the nuts and bolts of structural health care reform have shifted from the public to the private sectors with the continued growth of corporately managed care, it was broad-based support from political leaders and now specific incentives for managed care enrollment and report card programs in Medicare reform bills that started the engine of the report card juggernaut.³⁹

³⁹ Senate Minority Leader Tom Daschle promised that all Medicare reform bills would require quality report cards from managed care plans. Much of the proposed \$270 billion in savings from Medicare Part A predicted by the Republican budget bill and the \$89-124 billion in savings in the Democratic counter-proposal depends directly on increasing enrollment in private managed care plans. See *Senate Democrats' Plan Cuts Growth by \$89 billion, Sets Up Commission*, 3 HCPR 40 d10 (October 9, 1995); *Medicaid Differences Expected to be Tough for Clinton, Congress to Bridge*, BNA HEALTH CARE DAILY (November 27, 1995). The Republican Medicare reform was part of the initial Congressional seven-year balanced budget package (HR 2491) that President Clinton vetoed. Debate over Medicaid reform to date has pitted the Republican proposal to turn Medicaid into block grants to the states (projected savings of \$163.4 billion) versus the Democratic vow to preserve Medicaid as a federal/state entitlement with savings achieved through managed care (projected savings \$83 billion).

C. Other Government Actors and the Private Sector

Government agencies and the private sector are not waiting for Congress to enact comprehensive health care reform. Even if Congress never passes health care reform legislation, the report card movement is quickly becoming a fixture of health care cost control and quality assurance efforts. A number of different actors are forging ahead with report card systems intended to inform consumers about quality and price.

At the federal level, the Agency for Health Care Policy and Research (AHCPR), located in the Department of Public Health, announced in September 1994 that it would develop a national report card on managed care providers that would combine the results of consumer surveys, medical records reviews, and analysis of insurance claims data.⁴⁰ In addition, a number of state governments have already passed laws requiring the creation and dissemination of hospital

⁴⁰ Jonathan Gardner, *Federal Agency Set to Grade Providers*, MODERN HEALTHCARE, Sept. 19, 1994, at 3. It is interesting to note that the AHCPR itself has become a battleground in the budget debates of 1995-1996. In March 1995, the House Budget Committee suggested that the budget for AHCPR be zeroed out over five years, while the Clinton Administration's package maintained funding at \$193.5 million. In testimony before the Committee, AHCPR and HCFA executives maintained that AHCPR was crucial to government efforts to conduct research in quality assurance and the best hope to standardize quality data collection systems. 57 *The Pink Sheet* 17 (March 27, 1995).

report cards.⁴¹

Private sector efforts are advancing even faster. The Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) is trying to become a major player in the report card scramble. In fall of 1994, JCAHO launched an intensive state-level lobbying effort to encourage health departments and reform commissions to adopt its clinical-indicator monitoring and public quality data disclosure systems. In California, Florida, and Washington, JCAHO has lobbied state authorities to mandate use of its systems to satisfy new health care data reporting laws.⁴² In addition, JCAHO has created a new vice-presidency for government relations to oversee the lobbying effort.

The private National Committee for Quality Assurance (NCQA), originally dedicated solely to accrediting Health Maintenance Organizations (HMOs), is bidding to become the ultimate arbiter of quality data gathering, analysis, and distribution. NCQA is currently engaged in a report card pilot program with twenty major health plans, and released its first report on the project in February 1995. NCQA found that lack of data-gathering standards, incomplete data bases, lack of preparedness by health plans and hospitals to collect the

⁴¹ California, Iowa, Ohio, and Florida, in addition to the Pennsylvania program described in Part II.B, have all launched or announced plans for statewide report card projects. See *infra* notes 88-104 and accompanying text.

⁴² David Burda, *JCAHO Seeks Inclusion in State Reform Legislation*, MODERN HEALTHCARE, Sept. 12, 1994, at 17, 17-19.

data, the absence of risk adjustment, and confusion over which data interested consumers represented the biggest challenges for future report card efforts. The president of NCQA, while supporting the effort as "necessary groundwork," concluded that "a lot of systems building needs to be done."⁴³ The Committee is also combining performance measures and consumer satisfaction surveys in a report card project involving Ford, General Motors, Chrysler, the United Auto Workers, and nine Michigan HMOs.⁴⁴

Corporations have invested heavily in report card systems. Long concerned about the cost and quality of health benefits offered to employees, large corporations have begun to forge partnerships with managed care plans to create their own report card systems. The New England Group, which includes 16 health plans and 28 employers and is led by Massachusetts-based Digital Equipment Corp and the Harvard Community Health Plan, is working with NCQA to establish such

⁴³ NCQA Issues Findings of Pilot on Managed Care Performance Measures 3 HCPR 9 d54 (February 27 1995); NCQA Pilot Project Aims to Make Measures Comparable, Accurate, MODERN HEALTHCARE 60 (March 20, 1995). Participating HMOs will each have paid \$100,000 for their involvement in the project. Paul J. Kenkel, *New England HMOs, Employers, Proceed with "Report Card"*, MODERN HEALTHCARE, Apr. 11, 1994, at 18.

⁴⁴ Louise Kertesz, *Kaiser Releases HEDIS Information*, MODERN HEALTHCARE, July 11, 1994, at 6; *Consumer Protection and Quality Assurance Under Health Care Reform, 1994: Hearings Before the Subcomm. on Health for Families and the Uninsured of the Senate Committee on Finance*, 103d Cong., 2d Sess. (forthcoming 1994) (statement of Margaret O'Kane, President, National Committee for Quality Assurance).

a system.⁴⁵ In an independent project that has discouraged proponents of a nationally uniform data system, Cigna HealthCare will pay Minnesota-based United HealthCare Corp., which covers approximately 23 million beneficiaries in managed care plans in 20 cities, approximately \$3 million in 1994 and 1995 to produce its own report cards.⁴⁶

The private sector is now leading the effort to develop meaningful tools to compare health plans and providers. Representatives of thirty major corporate employers, including American Express, AT&T, UPS, GTE Corp., and Ameritech gathered at Jackson Hole, Wyoming to designate five conditions as the initial focus for the quality assurance efforts of their health plans and providers: asthma, breast cancer, coronary artery disease, diabetes, and lower back pain.⁴⁷ With the leadership vacuum created by the demise of federal health care reform, these corporate players are now using their market power to set the quality assurance agenda for the next century.

Xerox has emerged as a leader in the corporate report card sector. Its benefits management system, dubbed HealthLink, may become a blueprint for a privatized report card industry that would fill the void left by stalled federal

⁴⁵ Kenkel, *supra* note 43, at 18.

⁴⁶ Paul J. Kenkel, *United HealthCare, Cigna Mavericks on Report Cards*, MODERN HEALTHCARE, Apr. 4, 1994, at 44, 44.

⁴⁷ *Jackson Hole Group Selects Conditions for Initial Outcomes Measurement Plan*, 3 HCPR 40 d39 (October 9, 1995).

legislation. Rather than commit all of its 170,000 disparate employees to a single managed care plan, Xerox has contracted plan oversight to six regional "network managers," who administer numerous local managed care plans eager to enroll Xerox employees. These network managers tend to be large corporations already active in the managed care arena: US Healthcare, Prudential Insurance, Blue Cross and Blue Shield of Rochester (N.Y.), Kaiser Permanente, and the HMO Group. As part of their administrative duties, network managers collect and distribute report card data from numerous local managed care plans. (See Appendix A for typical Kaiser and US Healthcare report cards.) Eligible plans must provide standardized quality and satisfaction data to network managers. Xerox distributes these report cards to employees and then, in a strategy known as "benchmarking," offers them financial incentives to choose the least costly plans. As a result, Xerox has had impressive success in controlling its health care expenditures.⁴⁸ However, it remains to be seen whether cost or satisfaction data guide employees' choices significantly more than quality data, or even whether quality data influence such choices at all. Looking from the other side of the examining table, providers and health plans clearly believe that employers focus more on price than on

⁴⁸ For 55 HMOs contracting with one of Xerox's six network managers, the premium increase for 1994 was only 1.1%, well below the industry average. Christine Woolsey, *Employers May Copy Xerox Plan for HMOs*, Bus. Ins., June 20, 1994, at 15-16.

quality when making health plan purchasing decisions. In one survey, two-thirds of managed care companies ranked price first or second in importance when choosing among variables important in marketing their services. Outcomes were ranked first or second only 9% of the time (Fig. 1).⁴⁹

Figure 1. Provider and managed care views on seven factors for success in the marketplace

<u>Factors</u>	<u>Percentage Ranked First or Second</u>
Price	69%
Patient Satisfaction	50
Provider Access	31
Quality Improvement Process	20
National Network Affiliation	11
Clinical Guidelines/Protocols	10
Published Outcomes	9

Source: Survey on Outcomes Management, Foster Higgins, 1994

D. *Growth of the Report Card Industry: De Jure or De Facto Reform*

The information disclosure programs endorsed by the HSA and its various legislative descendants described the concept of a consumer-directed, information-based, quality and cost control program. For the substance of such a program, consumers must await the results of work carried out by some combination of National Health Boards, National Quality

⁴⁹ Survey by Foster Higgins, a New York benefits consulting firm. Rhonda Bergman, *Study: Employers Consider Cost Over Quality in Health Purchases*, 68 HOSP. 54 (1994).

Management Councils, Regional Professional Associations or Quality Improvement Foundations, Alliances, state governments, and private organizations. This work has already begun in earnest. Corporate benefits managers and independent network managers with corporate clients are now set to implement report card systems, whether or not Congress succeeds in passing a reform bill that legislates federal or state responsibility for the ultimate administration of information disclosure.

The private sector's financial incentives to develop effective report card systems are immense. Employers such as Xerox clearly covet the potential direct cost savings if workers respond to the cost information contained on report cards. Less obvious, but potentially far more lucrative for the victor, is the new battleground over developing the report card standard in what has become the health care growth industry of the twenty-first century. The Mitchell Plan proposed a \$2.4 billion budget for the National Quality Council, Quality Assurance Foundations, and Consumer Advocacy Centers; much of this sum would have been used for subcontracting. The proliferation of state, corporate, and federally-funded efforts to produce report cards has created a new billion-dollar industry in health care information processing and distribution. Corporations and managed care plans, as direct providers of health care services or as network managers, may soon control the flow of health care

information and, with it, billions of dollars in health care benefits. The AHCPR's multi-million dollar demonstration project, which is expected to produce its first comprehensive report card within four years, is awarding initial six-month contracts for the design of the consumer survey phase of the program. Given their investment in data systems, each of these various private actors have a significant interest in the adoption of their benchmarks and format as the national standard.

E. *The Goals of Information Disclosure in Health Care*

Without exception, policymakers have embraced consumer-directed information disclosure as the key to their quality assurance proposals.⁵⁰ Disclosure attempts to equalize the bargaining relationship between individual consumers and providers so as to minimize noncompetitive bargaining. Informational equality prevents inefficiencies that usually take the form of noncompetitive pricing. Disclosure supporters argue that informing consumers will avoid extensive direct price regulation.⁵¹ Disclosure can also serve

⁵⁰ Information disclosure is both a market protection and consumer protection device. In general economic terms, disclosure is aimed at correcting informational asymmetries between producers and purchasers which can lead to market failure.

⁵¹ See Griffith L. Garwood et al., *Consumer Disclosure in the 1990s*, 9 GA. ST. U. L. REV. 777, 779-81 (1993); Howard Beales et al., *The Efficient Regulation of Consumer*

consumer protection goals by enhancing product quality. Requiring disclosure of important product or service characteristics discourages producers from cutting quality corners; producers that cut corners are likely to lose market share because informed consumers will recognize the quality gap between different products and change their purchasing behavior accordingly.⁵²

In the health care context, a policy of consumer-directed information disclosure may have several specific goals. First, disclosure may be considered an end in its own right. Consumers, it is argued, have a right to know about their health care providers ahead of time. Accordingly, disclosure programs are justified whether or not consumers use the

Information, 24 J. L. & ECON. 491, 501-509 (1981) (discussing market failures that occur in the production of information in classical economic terms).

⁵² Information disclosure has become an increasingly important component of the federal government's contribution to consumer protection. Until recently, such regulation focused primarily on mandatory disclosure of health risks. Government agencies and statutes require risk labeling for tobacco products, 15 U.S.C. §§ 1331-1334 (1993); pharmaceuticals, 21 U.S.C. §§ 351-360ee (1993); asbestos, pesticides, and other toxins, 15 U.S.C. §§ 2601-2655 (1993); and saccharin products, 21 U.S.C. § 343(o) (1993). Furthermore, under the Emergency Planning and Community Right to Know Act of 1986, companies must report the health effects of toxic chemical storage and release, 42 U.S.C. §§ 9601-9622 (1993).

Information disclosure has moved beyond risk warnings and is now an important part, or even the primary purpose, of a number of federal laws. For instance, the Truth in Savings Act requires banks to release standardized financial data to patrons, 12 U.S.C. §§ 4301-4313 (1993), and the Fair Credit and Charge Card Disclosure Act of 1988 mandates standardized credit term disclosure, 15 U.S.C. §§ 1610, 1632, 1637, 1640, 1646 (1993).

information generated. A second possible goal, and one that is a particular focus of the Clinton administration, as well as numerous legislators and corporate benefits managers, is cost containment. Armed with the kinds of information provided by report cards, consumers will foster price competition among plans, thus holding down overall costs by rewarding low cost plans with their business. A third goal is quality improvement. By disclosing quality data, report cards may threaten the market share of low-quality plans, and thus stimulate quality improvements. In order to attract new subscribers, plans would have to modify their delivery of care to score well against the quality benchmarks established for the report cards.

Report cards advance these policy goals with varying degrees of success. Disclosure for disclosure's sake is self-validating, although a simpler format might achieve this limited goal just as well as a report card. Price disclosure may foster cost containment, but there is little supporting evidence. At the very least, third-party insurance or employer-based subsidies insulate most consumers against true price sensitivity, and national report card programs are themselves prohibitively expensive. The third policy goal – quality assurance – may be the one to which report cards are least suited. Given the limited state of the art in the science of quality measurement, it is unclear that disclosed information accurately reflects quality health care delivery.

These limits, coupled with uncertainty over how consumers integrate this information into their health care choices, make the impact of comprehensive disclosure on quality unknown at best, and illusory or counter-productive at worst. To the extent that price information sways consumers more than quality data, quality assurance suffers. To the extent that satisfaction and quality data are not interchangeable and the former more persuasively guide consumer choice, then report cards again fail to achieve quality assurance.

F. *Conclusion: Acceptance of the working hypothesis that report card systems are the cornerstones of recent federal and state legislative/regulatory initiatives and private sector efforts to reform quality assurance programs in health care.*

Through the formulation of national quality measures and the dissemination of performance data to consumers, policy-makers hope to create a market in which health care providers compete in terms of price and quality, thus assuring quality and containing costs. To achieve this vision, most legislative drafts propose a dizzying array of boards, councils, and foundations to marshal the numerous players into producing a large quantity of data. Whether through public mandate or the promise of private reward, a faith in report cards is taking hold.

However, the collection of data is only a first step. Translating raw data into manageable and comprehensible information that consumers will actually use to make discriminating quality decisions is a far harder task. Neither policymakers, nor the national boards and regional agencies they would create, nor the private corporations that are leading the managed care revolution are yet capable of taking that second step. Parts II and III of this discussion and acceptance of the remaining working hypotheses explain why this is the case.

III. The Current State of the Art in Quality Measurement Programs

Existing report card proposals promise more than they can deliver. The undeveloped science of quality measurement, the high costs of data gathering, compilation, and dissemination, and uncertainty about how consumers respond to disclosed information undermine the quality assurance objectives of report card systems. Congressional reform and private sector initiatives must account for these various limitations.

First, the science of quality management is still in its infancy, "making it unlikely that it could be applied on a national scale any time soon."⁵³ The crude tools now

⁵³ Barry Meier, *Health Plans Promise Choice But Decisions May Be Hard*, N.Y. TIMES, Mar. 31, 1994, at A1, B8. Meier notes the following assessment by David Eddy, a noted

available -- mortality rates, vaccination rates, numbers of procedures performed, malpractice actions brought or settled -- are not sufficient to inform consumer choice fully. Administration officials admit that development of quality measurement techniques could take ten years.⁵⁴ Others view that as outrageously optimistic.⁵⁵ It is simply unrealistic to take the few quality-related indicators now available, standardize them nationally and regionally for case-mix, severity of illness, demographics, patient load, and a host of other barely-recognized risk adjustment factors, and produce a report card grade that has any meaningful relationship to the quality of care delivered. Simply identifying useful quality indicators is a monumental task.⁵⁶

Second, the costs of implementing report card proposals could be prohibitive. In addition to the direct costs of creating various bureaucracies (the National Health Board, the

expert in quality research, who helped to draft the quality provisions of the HSA: "[A]nyone who believes that we have all the measures we need right now is kidding themselves." *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ See Kathleen N. Lohr et al., *Current Issues in Quality of Care*, HEALTH AFF., Spring 1988, at 5, 6 (1988) (defining quality remains major challenge); David Eddy & John Billings, *The Quality of Medical Evidence: Implications for Quality of Care*, HEALTH AFF., Spring 1988, at 19, 20 (development of reliable standards requires better data and greater ability to analyze than is presently available); Phillip Caper, *Defining Quality in Medical Care*, HEALTH AFF., Spring 1988, 49, 51 (setting quality standards is currently an ad hoc process).

National Quality Management Council, and the regional foundations proposed in several of the reform plans), substantial indirect costs for data gathering will fall squarely on plans and providers. The direct price tag for producing the report cards nationally may be several billion dollars, and the financial burden of the indirect costs of data production on unprepared providers could exceed that figure.⁵⁷

Third, most health care institutions are not equipped to produce the kinds of data required for a report card. Electronic information systems, which were crucial components of the massive data gathering proposal advanced in the Clinton Plan, have only recently arrived in large hospitals. Most such systems are oriented more towards billing than clinical care, and efforts to refocus these databases towards clinical care and quality measurement are still in the experimental stage.⁵⁸ Thus far, the most comprehensive development has

⁵⁷ Rhonda Bergman, *Report Cards Will Be Used To Measure the Performance of Health Plans: How Might They Work?*, HOSPITALS, Oct. 20, 1994, at 70 (estimate by Dr. Robert Brook, head of health sciences program at RAND Corp.).

⁵⁸ For example, the Ischemic Heart Disease Patient Outcomes Research Team (PORT) reported on the unreliability of many hospital administrative data bases (as opposed to clinical data bases), given the former's poor recording of comorbidities. PS Romano, LL Roos et al, *A comparison of administrative versus clinical data: coronary artery bypass surgery as an example*, 47 J CLINICAL EPIDEMIOLOGY 249-60 (1994). See also AJ Hartz and EM Kuhn, *Comparing hospitals that perform coronary artery bypass surgery: the effect of outcomes measures and data sources*, 84 AM J PUB HEALTH 1609-14 (1994) (concluding that administrative data is inadequate to assess quality care and that comparisons between providers are

been the trial of the Integrated Inpatient Management Model at the University of Michigan Hospital. This ambitious clinical information system, covering two internal medicine wards, combined computerized resource-use and procedure tracking with non-punitive feedback to aid providers in identifying and managing resource-intensive patients. Though promising, this small trial represents only a starting point for the development of process-oriented quality management data systems.⁵⁹ After a year's frustrating experience with its report card pilot program for Medicaid recipients in three states, the Agency for Health Care Policy Research (AHCPR) concluded that both states and plans need significant lead time to conduct the clinical studies and surveys required for report cards. Even then, one administrator noted, establishing interagency coordination of monitoring and oversight is "easier said than done."⁶⁰

Moreover, clinical information systems remain hospital-based. They have not yet focused on non-institutional outpatient settings, where the vast majority of routine health

difficult unless measured outcomes are defined identically for given procedures).

⁵⁹ See Frederick A. Creighton et al., *An Integrated Inpatient Management Model*, *HEALTH CARE MGMT REV.*, Winter 1990, at 61; Lawrence F. McMahon et al., *The Integrated Inpatient Management Model: A New Approach to Clinical Practices*, 111 *ANNALS OF INTERNAL MED.* 318 (1989).

⁶⁰ *State Medicaid Directors Hear Reports on Methods of Measuring Quality of Care*, 2 *HCPR* 44 d22 (November 7 1994), quoting Elaine Fuller of AHCPR's Quality Assurance Reform Initiative.

care takes place. Some large provider networks are preparing for this task with substantial investment in computerized patient-information systems. Kaiser Permanente, the nation's largest HMO, recently announced a one billion dollar, decade-long initiative to computerize patient records and track medical procedures.⁶¹

Finally, more information in the form of raw data, statistics, and rates may not lead to better quality-based decision-making on the part of consumers. It is currently unclear how well measurable factors reflect the quality of care. Moreover, cognitive biases suggest that data may be de-emphasized, overemphasized, or ignored.⁶²

The health reform movement has sparked an intense interest in quality programs over the last several years. In addition to the private investment in quality programs occurring in hospitals and large health plans, the federal Agency for Health Care Policy and Research has increased its budget for health care outcomes projects from \$3.6 million in 1989 to \$42.6 million in 1993.⁶³ But, so far, the "quality report card" movement has done little more than establish quality measurement as an essential element of health care

⁶¹ Meier, *supra* note 53, at B8.

⁶² See *infra* pp. 45-65.

⁶³ Joe Burns, *Higher Quality Means Lower Costs*, in Special Report, *supra* note 26, at 5.

"Outcomes projects" or "outcomes research" measures what happens to patients as a result of the treatments they receive.

delivery.

A. *Quality Measurement in Health Care: Satisfaction, Process, and Outcomes*

A discussion of some current quality measurement programs, with a special focus on a statewide report card program, highlights the practical measurement, cost, and consumer processing problems that fledgling health care information disclosure strategies will inevitably encounter. These efforts reflect the promise and limitations of current quality measurement. Familiar marketing tools like consumer surveys are becoming increasingly important, but meaningful quality measurement will depend on the further development of techniques such as process and outcomes measurement.

1. *Surveys and Satisfaction*

Consumer surveys play an important role in health plan management, but their relationship to quality measurement remains ill-defined. Patient responses to the care received and its results certainly reflect satisfaction, but measure quality only indirectly. Dissatisfaction can result from unhappiness with a diagnosis or from a disability, rather than from substandard delivery of care. Inconvenience also plays a role; in one survey an important independent variable in predicting patient satisfaction in outpatient settings was

time spent in the waiting room.⁶⁴ One analysis of patient satisfaction with an outpatient endoscopy lab found that cleanliness, privacy, and nursing attention – rather than cost, treatment outcome, or technical skill – had the most significant impact on global satisfaction.⁶⁵ The ease with which patients can make appointments, and the behavior of receptionists, are both important determinants of satisfaction.⁶⁶ A recent research summary concluded that a consumer's choice of provider correlates more closely with judgments based on intuition, tradition, convenience, and word-of-mouth reputation than with objective measures of performance.⁶⁷ One marketing study found that the yellow

⁶⁴ John C. Mowen et al., *Waiting in the Emergency Room: How to Improve Patient Satisfaction*, J. HEALTH CARE MKTG., June 22, 1993, at 26.

⁶⁵ L Cohen, P Delaney et al, *Listening to the customer: implementing a patient satisfaction measurement system*, 17 GASTROENTEROLOGY NURSING 110-5 (1994).

⁶⁶ Bernard R. Kingsley & Dennis N. Hodges, *Economic Benefits of Practice Enhancement*, J. HEALTH CARE MKTG., Dec. 1988, at 67, 67-69.

⁶⁷ Robert J. Panzer & Carol Cronin, *Using Information in Quality Improvement and Quality Assurance*, in PUTTING RESEARCH TO WORK IN QUALITY IMPROVEMENT AND QUALITY ASSURANCE, Agency for Health Care Policy and Research/DHHS, Pub. No. 93-0034 (July 1993). Individual information-seeking behavior about specific illnesses also tends to come from a variety of subjective sources. See e.g., J. David Johnson & Hendrika Meischke, *Cancer Information: Women's Source and Content Preferences*, J. HEALTH CARE MKTG., Mar. 1991, 37 (individuals receive information on cancer and other health-related issues from range of sources, including friends and relatives, physicians, cancer-related organizations (telephone hotlines), and media; interpersonal sources are influential because they provide information and social support); Mark Peyrot et al., *Consumer Satisfaction and Perceived Quality of Outpatient Health*

pages ranked just below friends as the most valuable source of information for consumers in search of a physician.⁶⁸

The marketing approach to measuring quality through surveys is based on a relative definition of quality. Disparity or gap analysis measures the difference between initial expectations about the service provided -- formed from past experience, word of mouth, and advertising -- and consumer perceptions once service delivery is complete. Rather than representing an objective assessment, "quality" is redefined as a measure of how well care lives up to or exceeds preconceived expectations.⁶⁹

However, surveys do serve some important purposes. Improved patient satisfaction can reduce patient alienation from the provider, improve communication between care-giver and patient, and lay the groundwork for a meaningful doctor-patient relationship. From a managerial perspective, surveys

Services, J. HEALTH CARE MKTG., Jan. 1993, at 24 (finding significant correlation between perceptions of staff behavior, atmospherics, and examination comfort with increased consumer satisfaction and willingness to recommend provider).

⁶⁸ Cathy J. Cobb-Walgreen & Pratibha A. Dabholkar, *The Value of Physician Advertising in the Yellow Pages: Does the Doctor Know Best?*, J. HEALTH CARE MKTG., Mar. 1992, at 55, 55-57. Cobb-Walgreen and Dabholkar note that 28% of the 20 million adults in the continental United States that arrange to use a physician's services for themselves or other family members through the yellow pages are first-time patients who do not have a specific doctor in mind when they open the directory. *Id.*

⁶⁹ See generally Thomas W. Whipple & Vicki L. Edick, *Continuous Quality Improvement of Emergency Services*, J. HEALTH CARE MKTG., Dec. 22, 1993, at 26.

are certainly useful. By identifying aspects of care delivery that consumers value, executives can better market their institutions.⁷⁰

Though complimentary, satisfaction and quality are not synonymous in the health care context. Measures of one cannot substitute as evidence of the other. Satisfaction is but one dimension in the definition of quality care; others include appropriateness (relevance of care provided to clinical needs, given current knowledge), availability, continuity (coordination of care among providers and organizations), effectiveness (skillful administration of care), efficacy (achievement of a desired outcome), efficiency (appropriate use of resources), safety, and timeliness.⁷¹

2. *Process*

Analysis of quality measurement in the service sector is a relatively new concept. The most significant step in developing quantitative measures of service quality was the introduction of the SERVQUAL system by Parasuraman, Zeithaml, and Berry in 1986. SERVQUAL was specifically designed to measure customer perceptions of service quality. It groups

⁷⁰ *Id.* Whipple and Edick describe how inpatient and outpatient satisfaction surveys were used in a multi-institutional emergency department chain to develop detailed plans for service improvement, appraise performance, recognize personnel, and differentiate services in a competitive market. *Id.*

⁷¹ *Id.*

the determinants of service quality into five areas: tangibles (physical facility attributes, appearance of personnel), reliability, responsiveness, assurance (which encompasses aspects of communication, credibility, security, competence, and courtesy), and empathy (which includes both access to, and understanding of the customer).⁷²

This focus on the process of providing service rather than on measuring specific outcomes has only recently been applied to health care. Early findings suggest that reliability is the most valued attribute, while tangible aspects of service delivery (e.g., decor of the office) rank lowest. In determining service quality, patients, unlike physicians, tend to place more importance on communication skills and less on technical competence.⁷³ The literature is inconsistent about the importance patients place on common proxies for technical quality such as years in practice, school attended, board certification, and membership in

⁷² A. Parasuraman et al., *SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality*, *J. RETAILING*, Spring 1988, at 12, 23; A. Parasuraman et al., *A Conceptual Model of Service Quality and Its Implications for Future Research*, *J. MKTG.*, Fall 1985, at 41, 41-50.

⁷³ Stephanie W. Walbridge & Linda M. Delene, *Measuring Physician Attitudes of Service Quality*, *J. HEALTH CARE MKTG.*, Jan. 1993, at 6 (concluding that traditional ranking of SERVQUAL categories derived from other service industries may not apply to health care); Joby John, *Improving Quality Through Patient-Provider Communication*, *J. HEALTH CARE MKTG.*, Dec. 1991, at 51, 58 (finding that patients' perception of high quality care depended directly on amount of communication between staff and patient regarding nature of diagnosis and treatment; physicians tended to rate quality based on technical competence of service provision).

professional associations. Some authors suggest that such factors have a limited impact on consumer perceptions,⁷⁴ whereas others argue that consumers do value such attributes.⁷⁵ The entire field of process measurement in health care remains in its infancy, and it is unclear what conclusions we should draw from its early contributions to quality assurance.

Understanding consumers' assessment of hospital quality is as important as fully comprehending their reasons for choosing a physician. Initial studies found that tertiary care level and size were the most important factors positively related to perceptions of hospital quality. Follow-up work indicates that many of the "process" factors that seem important in satisfaction with individual providers also apply

⁷⁴ Kenneth D. Bopp, *How Patients Evaluate the Quality of Ambulatory Medical Encounters: A Marketing Perspective*, 10 J. HEALTH CARE MKTG., Mar. 1990, at 6, 6.

⁷⁵ Anthony R. Kovner & Helen L. Smits, *Point of View: Consumer Expectations of Ambulatory Care*, HEALTH CARE MNGT REV., Winter 1978, at 69, 71. In the specific area of breast implantation, one study found that board certification was an "important symbol in establishing credibility in advance of personal experience with the service provider." See Emin Babakus et al., *Issues in the Practice of Cosmetic Surgery: Consumers' Use of Information and Perceptions of Service Quality*, J. HEALTH CARE MKTG., Sept. 1991, at 12, 17. One set of authors has demonstrated that the importance of process measures of quality depends on whether there was a successful treatment outcome. See Richard S. Lytle & Michael P. Mokwa, *Evaluating Health Care Quality: The Moderating Role of Outcomes*, J. HEALTH CARE MKTG., Mar. 1992, at 4, 4 (concluding after study of fertility clinic that process measures did not correlate with consumer quality perception upon successful outcome, i.e., pregnancy; but process measures did significantly correlate with consumer quality perception upon unsuccessful treatment outcome).

to the hospital setting; "patient relations, medical staff, nursing staff, convenience, and technology" are identified as factors in determining a level of quality to consumers.⁷⁶

3. *Outcomes*

Researchers in the field recognize that meaningful health care quality measurement requires the development of new tools. Coupled with a process of care analysis like SERVQUAL, outcomes research, which measures what happens to patients as the result of the treatments they receive, is one of the most important of these instruments. A variety of players in the health care field have begun to implement outcomes research projects. The federal Agency for Health Care Policy and Research is the largest sponsor of these projects, which include Patient Outcomes Research Teams (PORTs) to support large scale investigations into common medical problems such as low back pain, diabetes, and stroke treatment. The PORT projects will yield valuable outcomes data, but not quickly. Each individual project requires a literature review and meta-analysis, an analysis of specific diagnostic and therapeutic strategies, the identification of variations in clinical practice through a national survey of physicians, an analysis of quality of life and patient preferences through surveys, the synthesis and development of recommendations through

⁷⁶ JOSEPH A. BOSCARINO, HOSP. & HEALTH SERVS. ADMIN., THE PUBLIC'S PERCEPTION OF QUALITY HOSPITALS II: IMPLICATIONS FOR PATIENT SURVEYS 13-31 (1992).

formal decision/cost effectiveness models and expert consensus panels, and finally, the dissemination of recommendations through an intervention-demonstration trial. Even before that exhaustive effort begins, researchers must define the relevant outcomes to be measured. The challenges for quality measurement in anesthesiology are emblematic. Are the relevant measured outcomes death, elimination of pathology, absence of pain, and recurrence of symptoms — which are largely functions of care given by other providers — or rather the incidence of acute intraoperative events like drops in blood pressure and tachycardia, postoperative nausea, and urinary retention?⁷⁷ The implications for current report card efforts is clear: most outcomes data is simply not yet available.

A joint project by the Rand Corporation and InterStudy, a non-profit health policy research organization, has produced the Outcomes Management System (OMS). This computerized database combines data about patient characteristics (age, sex, race, etc.), risk factors (tobacco and alcohol use, cholesterol levels, etc.), preexisting health conditions, and patient satisfaction with the results of a thirty-nine question Health Status Questionnaire (reproduced in Appendix B) that attempts to measure quality of life. This survey asks questions about daily activities and the impact of health

⁷⁷ See MM Cohen, PG Duncan et al, *The Canadian four-centre study of anaesthetic outcomes*, 39 CANADIAN J ANAESTHESIA 430-9 (1992).

status on abilities to walk, work, and participate in social activities.⁷⁸ Medical centers around the country are currently developing disease-specific quality of life questionnaires for the Technology of Patient Experience (TyPE) project, which adds clinical and laboratory data, symptomatic reporting, and treatment information to the OMS approach for conditions such as asthma, cataracts, diabetes, and prostatism.⁷⁹

Connecticut hospitals launched the "Towards Excellence in Care" program in 1988 to apply the Connecticut Health Information Management Exchange (CHIME) database to the development of outcomes data. The CHIME database contains discharge abstract information and billing information for all of Connecticut's 34 acute-care hospitals. The "Towards Excellence in Care" program produces reports on care for particular diagnoses. For example, the report series on cholecystectomy (gall bladder removal) compares technical complications, total complications, and long post-operative stays at individual hospitals with the state mean (Appendix C). Reports are reviewed by physician panels and directed towards hospital medical departments and quality assurance

⁷⁸ The Outcomes Management System is described in Alter & Holzman, *supra* note 26, at 10-11. The RAND Health Status Survey is described in HEALTH OUTCOMES INST., OUTCOMES MEASUREMENT INSTRUMENTATION 1, 1-3 (Nov. 1993).

⁷⁹ HEALTH OUTCOMES INST., *supra* note 78, at 1-3.

staff rather than the public.⁸⁰

Comparison of reliable outcomes data amongst providers and hospitals would seem to be a prerequisite for a useful report card based quality assurance system, but even the most extensive and well funded outcomes projects are just beginning to publish their results. Naturally, the conclusions reached in many outcomes projects have serious, and sometimes counter-intuitive, implications for report card systems. For example, one study comparing Canadian and American patients treated for coronary artery disease found that while Canadian patients underwent far fewer invasive procedures (angioplasty and bypass), at one year of follow-up they also had significantly worse functional status and higher rates of debilitating symptoms (angina and dyspnea).⁸¹ By the same token, a population-based analysis of bypass surgery rates found that simply reducing the number of surgical procedures in "overuse areas" would improve overall patient outcomes as much as improving technical quality.⁸² By simply reading procedure and mortality rates from a report card, consumers could not

⁸⁰ John T. Lynch et al., *The "Toward Excellence in Care" Program: A Statewide Indicator Project*, 19 J. QUALITY IMPROVEMENT 519, 519-29 (1993).

⁸¹ DB Mark, CD Naylor et al, *Use of medical resources and quality of life after acute myocardial infarction in Canada and the United States*, 331 NEJM 1130-5 (October 27, 1994).

⁸² NP Roos, CD Black et al, *A Population-based approach to monitoring adverse outcomes of medical care*, 33 MEDICAL CARE 127-38 (1995).

possibly appreciate these important nuances of quality care that outcomes projects are beginning to identify.

Even before usable quality indicators emerge from ongoing outcomes research, these projects have called into question the indicators we currently use. The initial data from the recent surge in outcomes research lays bare the inadequacy of mortality data as an adequate proxy for quality care. One problem with mortality data has always been its accuracy; one study found that coding errors in the discharge abstracts of Medicare patients caused some hospitals' 30-day mortality rates to vary from the 10th to the 90th percentiles (0.2 to 2.2 30-day deaths per 100 admissions).⁸³ Even if the data are accurate, problems persist. By comparing 30-day and 180-day post-admission hospital mortality for several categories of cardiac patients, the Ischemic Heart Disease PORT found that 30-day data discriminated only the top and bottom fifths of the 180-day data well.⁸⁴ Thus, in addition to the many pitfalls of using mortality data at all (especially inadequate risk adjustment and severity rating), the commonly used 30-day mortality data does not even adequately reflect slightly longer term mortality for 60% of hospital providers.

One important contribution outcomes research has had to

⁸³ J Green and N Wintfeld, *How accurate are hospital discharge data for evaluating effectiveness of care?*, 31 MEDICAL CARE 719-31 (1993).

⁸⁴ DW Garnick, ER DeLong et al, *Measuring hospital mortality rates: are 30-day data enough?*, 29 HEALTH SERVICES RESEARCH 679-95 (1995).

efforts to measure health care quality is the inclusion of "health-related quality of life" (HRQL) in the lexicon of quality assurance. One useful classification of HRQL described five levels: biological and physiological factors, symptoms, functioning, general health perceptions, and overall quality of life.⁸⁵ The challenge in using HRQL in any quality assessment system, however, remains separating inputs beyond the control of the provider from the evaluation of the provider's care.

4. *Risk Adjustment*

The measurement of clinical outcomes as part of a larger effort to reach generalizable conclusions about quality must incorporate the daunting process of risk adjustment. While the pitfalls of risk adjustment under the Clinton Plan, or any reform proposal, are beyond the scope of this paper, some general observations suffice to outline the challenge. Individual patients are different in so many ways that establishing a reference group is often problematic. The presence of several illnesses in the same individual, or comorbidity, can significantly affect the outcome measurement of the primary disease. The interdependence of diagnoses is particularly important in elderly populations. Quality measures must account for these confounding factors.

⁸⁵ IB Wilson and PD Cleary, *Linking clinical variables with health-related quality of life. A conceptual model of patient outcomes*, 273 JAMA 59-65 (1995).

5. Challenges in Quality Measurement

Other challenges abound in the quality research arena. Databases are incomplete and often incompatible with other systems.⁸⁶ Outcomes projects are labor intensive for both patient and provider, and the results obtained about different treatments are not usually products of randomized trials. Perhaps the greatest challenge in quality research is cost. One consultant estimated start-up costs for an outcomes program measuring a modest number of variables to be \$350,000 to \$550,000 over the first two years and ongoing costs of \$100,000 to \$250,000 per year.⁸⁷

B. The Pennsylvania Report Card Program

The most ambitious and controversial attempt to combine advances in health care quality measurement with consumer-directed information disclosure is taking place in Pennsylvania. In 1986, the General Assembly created the Health Care Cost Containment Council to collect and publish cost and quality data from hospitals.⁸⁸ The Clintons, in

⁸⁶ Many hospitals, for instance, computerize only their inpatient care data, leaving outpatient clinic or ambulatory surgery information unrecorded.

⁸⁷ Dale Shaller, senior consultant to the employers participating in the Cleveland Health Quality Choice program, provides these estimates. *Employers get involved in outcomes research*, in *Special Report*, *supra* note 26, at 26, 27.

⁸⁸ Health Care Cost Containment Act, PA. STAT. ANN. tit. 35, §§ 449.1-449.19 (1993); administrative regulations found at 28 PA. CODE § VI (1993).

fact, pointed to this agency as the model for their proposed quality program.⁸⁹ The state legislature directed the Council to collect charge, payment, and financial data, readmission rates, mortality rates, morbidity rates, and infection rates until more scientific quality and outcomes measures were developed. The Council published its first series of *Hospital Effectiveness Reports* in 1990, and new data is compiled annually.⁹⁰ Hospitals are invited to comment on any aspect of the report; the Council publishes their responses separately.⁹¹

The report on 1991 data was released on February 3, 1994. It discloses the number of patients treated within 53 Diagnosis Related Groups (DRGs) at each hospital. Within each DRG, the report presents the average admission severity score (based on degree of organ failure and scored from 0 to 4), the percentage of patients age 65 and over, the death rates and

⁸⁹ *The Clinton Health Care Proposal: Hearings Before the House Comm. on Ways and Means*, 103d Cong., 1st Sess. (Sept. 28, 1993) (remarks by First Lady Hillary Rodham Clinton urging Pennsylvania Costs Containment Council as model); *The Clinton Health Care Plan: Hearings Before the Senate Comm. on Labor and Human Resources*, 103d Cong., 1st Sess. (Sept. 29, 1993) (remarks by First Lady Hillary Rodham Clinton).

⁹⁰ PENNSYLVANIA HEALTH CARE COST-CONTAINMENT COUNCIL, PUB. HE6-1-89 HOSPITAL EFFECTIVENESS REPORT 1989:1 (1990). See also PA. STAT. ANN. tit. 35, §§ 449.7(a)(1)(iii), 449.5(d)(4) (1993) (data dissemination and publication); PA. STAT. ANN. tit. 28, §§ 911.1-911.6 (1993) (data submission and collection); PA. STAT. ANN. tit. 28, §§ 912.1-912.81 (1993) (data reporting requirements).

⁹¹ See PENNSYLVANIA HEALTH CARE COST CONTAINMENT COUNCIL, PUB. NO. HE9-91 v.4, FORMAL COMMENTS: HOSPITAL EFFECTIVENESS REPORT FOR REGION 9 (Sept. 1993) [hereinafter FORMAL COMMENTS].

major morbidity rates as compared to expected values from statistical models, average length of stay, and the average charge at each hospital. The report also includes summary statistics for each hospital that combine all the information across DRGs and present average charges adjusted for case-mix. Case-mix adjustment raises or lowers the average charge based on the number of patients treated within more costly DRGs.⁹² (A report for a single DRG and a summary statistic chart from the 1991 *Hospital Effectiveness Report* are attached in Appendix D.)

The Council has recently begun to publish a separate report series: *A Consumer Guide to Coronary Artery Bypass Graft Surgery*. These pamphlets disclose physician-specific as well as hospital-based data from 1990 and 1991 (Appendix E). The 1990 report identified 14 out of the 170 surgeons and 7 out of the 34 hospitals as having more patient deaths than expected. The average charge for the operation ranged from \$83,851 at Graduate Hospital to \$21,063 at Reading Hospital in 1990.⁹³ The report on 1991 data, which was significantly

⁹² See generally PENNSYLVANIA HEALTH CARE COST CONTAINMENT COUNCIL, PUB. NO. HE9-91 v.4, HOSPITAL EFFECTIVENESS REPORT (Sept. 1993) [hereinafter HOSPITAL EFFECTIVENESS REPORT]; Stacey Burling, PA Rates Hospitals' Effectiveness, PHILADELPHIA INQUIRER, Oct. 14, 1993, at B1.

⁹³ Marc Kaufman, *Health Panel's Report Compares Heart Surgeons' Patient Deaths*, PHILADELPHIA INQUIRER, Nov. 20, 1992, at A1 (reporting that the release of the heart bypass report was prompted by high-interest, high-risk, and high-cost); David Zinman, *Keeping Score: The New Trend Toward Evaluating Medical Care*, 7 AMERICAN HEALTH 56, 60-62 (1993). Hillary Rodham Clinton exaggerated the power of the Council report to

delayed by budget cutbacks, identified 6 of 176 surgeons and 0 of 35 hospitals with more patient deaths than expected. The average charge for a bypass operation varied from \$89,236 at Graduate Hospital to \$23,205 at Reading.⁹⁴ The Council does not disclose physician-specific charges.

Critics charge that the statistically modelled risk-adjustment is grossly inadequate,⁹⁵ and that mortality rates

comprehensively measure quality when she testified before the House Ways and Means Committee that there were no quality differences between Graduate and Reading Hospitals despite the cost discrepancy. *The Clinton Health Care Proposal: Hearings on H.R. 3600 Before the House Ways and Means Comm.*, 103d Cong., 1st Sess. 20 (1993) (testimony of First Lady Hillary Rodham Clinton).

⁹⁴ PENNSYLVANIA HEALTH CARE COST CONTAINMENT COUNCIL, 2 A CONSUMER GUIDE TO CORONARY ARTERY BYPASS GRAFT SURGERY 23 (1991) [hereinafter CONSUMER GUIDE TO BYPASS GRAFT SURGERY].

⁹⁵ See Mark S. Blumberg, *Biased Estimates of Expected Acute Myocardial Infarction Mortality Using MedisGroups Admission Severity Groups*, 265 J. AM. MED. ASS'N 2965 (1991) (criticizing the "admission severity group" risk adjustment process under the Council-mandated Medical Illness Severity Grouping System (MedisGroups) for heart attacks; finding that estimated death rates were biased for age, location of the heart damage, history of heart failure, blood levels of potassium and urea, pulse rate, and blood pressure, while neglecting many other risk factors); Burling, *supra* note 92, at B1 (reporting dissatisfaction within the Pennsylvania hospital industry with the MedisGroup risk-adjustment system; giving the example that the rates are not adjusted for mortality due to patient-directed DNR ("Do not Resuscitate") orders); Wilbur B. Pittinger, *Comparing Hospital Costs Not Simple*, PHILADELPHIA INQUIRER, Oct. 12, 1993, at A10, and Letter from Wilbur B. Pittinger, Executive Director, Hospital of the University of Pennsylvania, to Ernest J. Sessa, Executive Director, Pennsylvania Health Care Cost Containment Council (Sept. 3, 1993), in FORMAL COMMENTS, *supra* note 91, at § E (arguing that effectiveness reports are poor consumer guides to quality because the risk adjustment process for patient severity underestimate the complexity of cases at academic teaching hospitals relative to community hospitals and because mortality rates do not account for DNR orders); Letter from

are a poor proxy for quality.⁹⁶ One re-analysis of the data showed that random variation in patients diagnosed with low mortality conditions (pneumonia) produced a 60% chance that one or more of the participating hospitals would be falsely identified as a "high-mortality outlier" when simplistic

Robert B. Kimmel, Senior Vice President, Albert Einstein Health Care Network, to Ernest J. Sessa, Executive Director, Pennsylvania Health Care Cost Containment Council (Sept. 13, 1993), in *FORMAL COMMENTS*, *supra* note 91, at § A (pointing out that MedisGroup mortality predictions are skewed by the exclusion of DNR orders and refusals of treatment); Kaufman, *supra* note 93, at A1 (reporting the release of physician-specific mortality rates for coronary artery bypass operations and charges from the medical community of inadequate risk and severity adjustment); Kristin E. Holmes, *Health-Care Report: Hospitals Beg to Differ*, *PHILADELPHIA INQUIRER*, June 6, 1991, at H3 (reporting that proximity to a nursing home — which is not included in the risk-adjustment formula — may increase the severity of the patient-mix at an individual hospital).

The *FORMAL COMMENTS*, *supra* note 91, are filled with criticism of the MedisGroup risk adjustment and severity scoring system. One surgical group complained that full cardiac arrest immediately prior to a CABG operation with CPR continuing until the incision received only a 2.5 out of 4 on the severity scale. See Letter from Dr. George J. Magovern, Cardio-Thoracic Surgical Associates, Inc., to Ernest Sessa, Executive Director, Pennsylvania Health Care Cost Containment Council (Jan. 18, 1994), in *PENNSYLVANIA HEALTH CARE COST CONTAINMENT COUNCIL, 2 CORONARY ARTERY BYPASS GRAFT SURGERY: HOSPITAL AND PHYSICIAN COMMENTS* (1994).

In response to these criticisms, the Council increased the number of risk adjustment factors it used to predict patient mortality in *CONSUMER GUIDE TO BYPASS GRAFT SURGERY*, *supra* note 94, covering 1991 data. It now adjusts for age, gender, previous bypass surgery, shock, congestive heart failure, renal dialysis, renal failure, recent heart attack, and diabetes in addition to the MedisGroup severity index for vital organ failure. *Id.* at 6-7.

⁹⁶ See generally Stephen F. Jencks, *Quality Assurance*, 263 J. AM. MED. ASS'N 2679 (1990) (summarizing studies that suggest sensitivity and specificity of mortality rates as proxy for quality depends largely on risk adjustment process).

statistical models were used.⁹⁷ Some fear that emphasis on mortality rates, coupled with insufficient risk adjustment for illness severity, will prompt hospitals to avoid taking the sickest patients.⁹⁸ One recent refinement in the 1991 *Hospital Effectiveness Report* has been separate reporting for cancer and non-cancer patients within DRGs where cancer is a common underlying condition.

Other critics complain that the average cost data is misleading; the Council does not correct for location-specific property values, wage rates, teaching costs, or charge differences attributable to interest on debt incurred for renovation and modernization.⁹⁹ More importantly, the cost charged does not reflect the actual payment received. For example, Graduate Hospital received an average of \$23,974 of its \$83,851 charge in 1990 and \$24,716 of its \$89,236 charge in 1991, and Reading Hospital collected \$18,221 from its \$21,063 1990 charge and \$19,021 from its \$23,205 charge in

⁹⁷ AR Localio, BH Hamory, et al, *Comparing hospital mortality in adult populations with pneumonia. A case study of statistical methods in a managed care program*, 122 ANN. INT. MED. 125-32 (1995).

⁹⁸ Kaufman, *supra* note 93, at A1 (quoting opinion of director of Hospital of University of Pennsylvania's quality assurance program, "It's going to be very difficult to sustain our role in the community (of taking any patient, no matter how sick) if there is extensive pressure to get our rates down").

⁹⁹ Ralph Vigoda & Stacey Burling, *Report on Costs: The Hospitals Beg to Differ*, PHILADELPHIA INQUIRER, June 6, 1991, at M3 (quoting Ellen Mattes, public relations manager for Bryn Mawr Hospital); Holmes, *supra* note 95, at H3.

Figure 2. Comparison of 1990 Charges VS Average Collections for CABG Surgery at Hospitals Participating in PHCCC Program

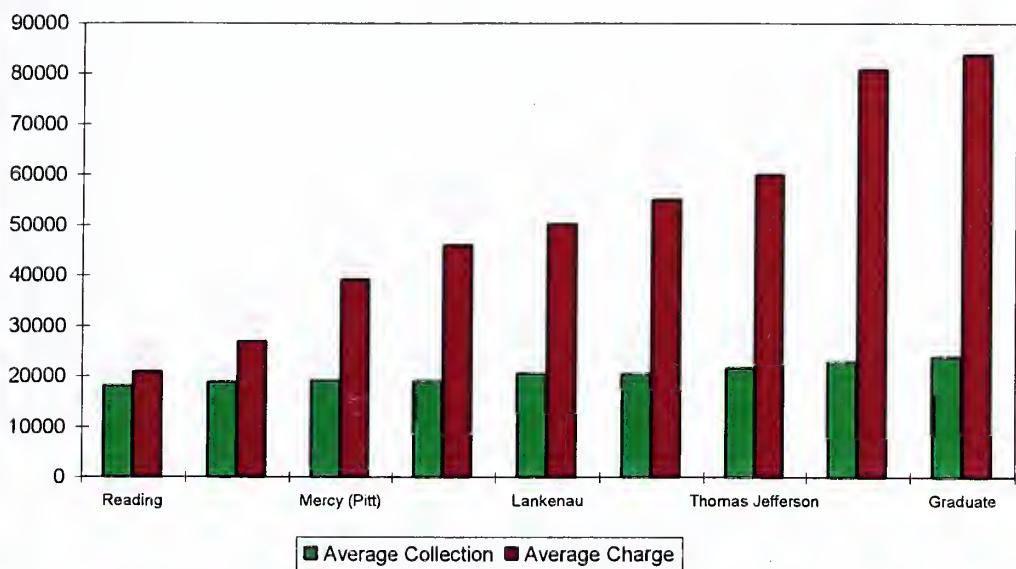


Figure 2. Source: Pennsylvania Health Care Cost Containment Council and Individual Hospital Information Offices, 1995

1991 (see Fig. 2 and Fig. 3).¹⁰⁰ To the extent that consumers actually base their decisions on charges — a tenuous assumption given their insulation from health costs through third party payment — the charge data is clearly misleading. The narrower \$5,753 (1990) or \$5,695 (1991) range of the more

¹⁰⁰ Dana Priest, *Hospital Bills Can Prove Hollow Basis for Comparison of Health Care Costs*, WASH. Post, Oct. 13, 1993, at A6; Letter from Samuel H. Steinberg, President and CEO of Graduate Hospital, to Ernest J. Sassa, Executive Director, Pennsylvania Health Care Cost Containment Council (Sept. 8, 1993) in FORMAL COMMENTS, *supra* note 91, at § C (stating that received percentage of the actual charge varied from 17.4% to 38.2% for 14 of most common DRGs); Letter from Samuel H. Steinberg, President and CEO of Graduate Hospital, to Ernest J. Sassa, Executive Director, Pennsylvania Health Care Cost Containment Council (January 20, 1994), 2 PENNSYLVANIA HEALTH CARE COST CONTAINMENT COUNCIL, FORMAL COMMENTS: CORONARY ARTERY BYPASS GRAFT SURGERY, HOSPITAL AND PHYSICIAN COMMENTS, (1994).

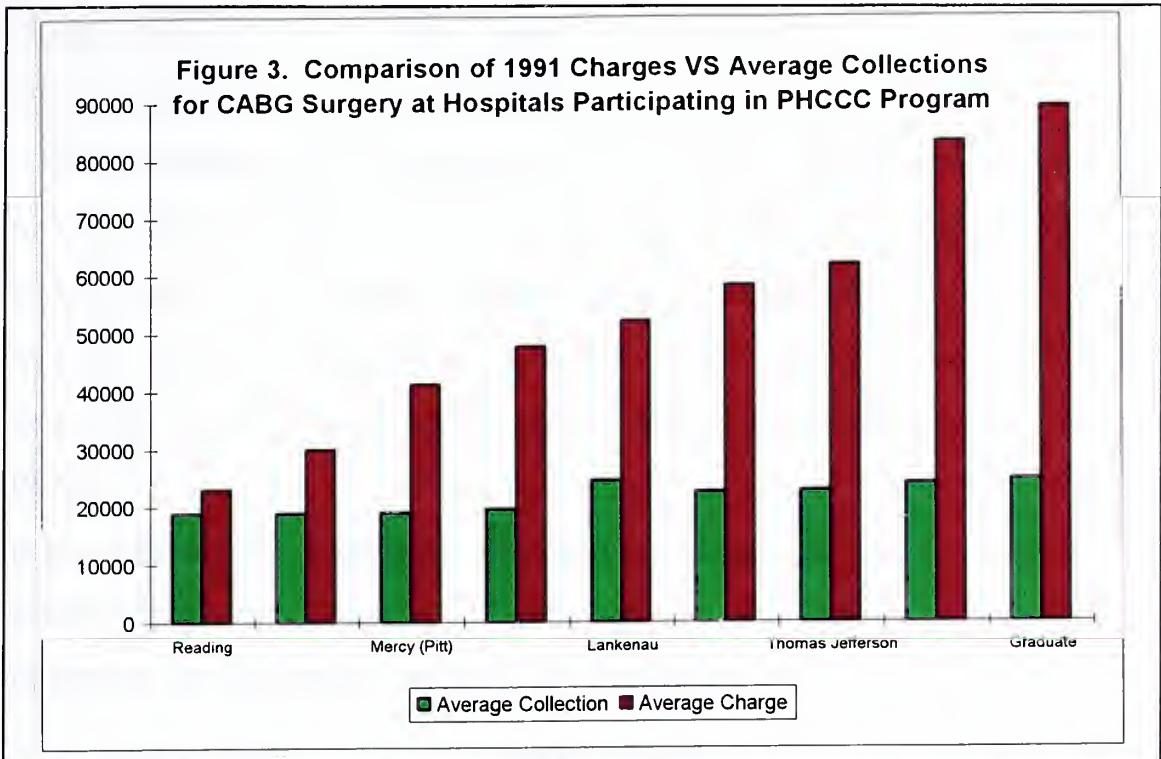


Figure 3. Source: Pennsylvania Health Care Cost Containment Council and Individual Hospital Information Offices, 1995

relevant collected fee is likely to influence patients and employers far less than the dramatic, but ultimately meaningless \$62,788 or \$66,031 variation in charges. The hospitals also complain about the roughly \$150,000 per year direct cost of mandated participation. They contend that the total cost to the state's hospitals for compliance with the various Council studies has been \$28 million to date.¹⁰¹

In what may be its most important task in the next few

¹⁰¹ Melissa Dribben & Stacey Burling, *Hospitals Contest Report's Diagnosis*, PHILADELPHIA INQUIRER, Sept. 2, 1990, at H4; Priest, *supra* note 100, at A6. The president of the Delaware Valley Hospital Council also estimated that it cost its 60 member hospitals about \$10 million to install computer systems for reporting data to the Council. See Wanda Motley, *Hospital Study is Criticized as Narrow, Shallow*, PHILADELPHIA INQUIRER, August 30, 1990, at H27.

years, the Council has begun to study how, or indeed if, consumers have used the published reports.¹⁰² One anecdotal report reveals the complexity of consumer response. A patient told the president of a low-cost hospital that she was switching to another institution because she thought "she could get better care at a place that charged more."¹⁰³ The results from an earlier project are also instructive. After HCFA's

publication of hospital mortality rates in 1987, one study found that the "death list" had no discernible behavioral effects on consumer choice of hospital.¹⁰⁴

C. *Other Experiments with Report Card Systems*

In addition to the Pennsylvania program, several other demonstration projects are experimenting with the report card format. As previously mentioned, private agencies, managed care plans, and major corporations have created a new industry in health care information processing by embracing report cards. A number of major managed care plans are using NCQA's employer-sponsored Health Plan Employer Data and Information Set (HEDIS) — which compiles technical, access, satisfaction,

¹⁰² Meier, *supra* note 53, at B8.

¹⁰³ Vigoda & Burling, *supra* note 99, at M3.

¹⁰⁴ Bruce Vladeck et al., *Consumers and Hospitals: The HCFA "Death List"*, *HEALTH AFF.*, Spring 1988, at 122, 122-25.

utilization, and plan management data into a performance report - to compare individual plan performance against benchmarks. NCQA plans to release an improved version of HEDIS, HEDIS 3.0, by 1997 in an attempt to capture the report card market; the improvements are designed to address criticism that HEDIS is not patient-oriented, performs no risk adjustment, is insensitive to special characteristics of poor (Medicaid) patients, and instead focuses too much on managed care administrative data. Kaiser Permanente, for example, has named HEDIS as the cornerstone of a pilot program scheduled for January 1996 to produce a report card in California as part of the California Cooperative HEDIS Reporting Initiative.¹⁰⁵

The initial versions of most HEDIS-based report cards compare plan-specific rates in several categories with either comparable plans, the national average, or goals established by the Department of Health and Human Services' *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. These categories may include: preventive services such as childhood immunization, cholesterol screening, mammography screening and cervical cancer screening rates; prenatal care indices including the percentage of low birth weight babies and the incidence of early prenatal care; data on specific chronic diseases such as hospitalization

¹⁰⁵ *Health Plans Face Increasing Demands for Data to Help Evaluate Performance*, 3 HEATH CARE POLICY REPORT 47 d41 (November 27, 1995).

rates for asthma patients; access indicators reflecting the ease of making an appointment, and general patient satisfaction rates.¹⁰⁶ But even NCQA's vice president of planning and development admits: "We don't know yet how good these performance measures are."¹⁰⁷ The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) also plans to publish a summary of hospital compliance with 50 areas of accreditation standards and has recently developed its own quality data base to compete with HEDIS. By 1997, JCAHO plans to leverage its power as an accreditation body into the report card market by making reporting into its Indicator Measurement System (IMS) mandatory for hospitals seeking accreditation.¹⁰⁸

Self-help quality assessment is also available. On-line services, like CompuServe offer a number of health care related forums that allow users to request information.

¹⁰⁶ Paul J. Kenkel, *Health Plans Face Pressure to Find "Report Card" Criteria That Will Make the Grade*, MODERN HEALTHCARE, Jan 10, 1994, at 41.

¹⁰⁷ *Id.*

¹⁰⁸ See Donald L. Zimmerman, *Grading the Graders: Using "Report Cards" to Enhance the Quality of Care Under Health Care Reform*, NATIONAL HEALTH POLICY FORUM, ISSUE BRIEF No. 642 (1994); *JCAHO Performance Measurement System On-Line with 131 Volunteer Hospitals*, 2 HCPR 11 d46 (March 14, 1994); The AMA opposed the release of the JCAHO's IMS-based hospital performance report cards, citing lack of physician involvement in their creation and a likelihood of consumer confusion. The president of JCAHO acknowledged that the first report cards would not be made available to the public until at least 1999. *AMA Concerned Over Release of Hospital Report Cards by JCAHO*, 2 HCPR 26 d41 (June 27, 1994).

Subscribers can obtain data on specific diagnoses and treatments or request opinions about hospitals and providers from other members.¹⁰⁹ Magazines like *Consumer Reports*, *New York*, and *U.S. News & World Report* now publish lists of the "best" regional hospitals, plans, and doctors.¹¹⁰ Capitalizing on a recent flurry of report card disclosures in St. Louis, a specialty magazine called *Health Pages* now compiles and explains comparative performance data on local managed care organizations (Fig. 4).¹¹¹

¹⁰⁹ Cathryn Conroy, *Care Takers*, COMPUSERVE MAGAZINE, Feb. 1994, at 10.

¹¹⁰ See, e.g., Doug Podolsky, *America's Best Hospitals*, U.S. NEWS & WORLD REPORT, June 15, 1992, at 60 (ranking hospitals nationwide based on physician surveys).

¹¹¹ Kenkel, *supra* note 106, at 41.

Figure 4. Example of Health Pages' HMO Report Card

HMO QUALITY INDICATORS		Health Choice	OneCare	Centene	Group Health	Health	Partners	PFC Health	ProCare	ProHealth	HealthFirst	HealthSouth
Pediatric Immunization	86%	76%	91%	76%	68%	77%	70%	89%	89%	49%	56%	
Mammography		74	38	58	35	46	44	52	52		25	
Pap Smears			47		41		52					
Eye Exam for Diabetics				30			41					
Prenatal Care				90		100		90	62	74	79	76
Low Birthweight	1	<1	3		5		5	1	<1	7	7	
Asthma	<1	3	3				3	1	<1			
Cesarean Section	27	25	26	21	25	23	28	23	23	23	23	

WHAT THE INDICATORS MEAN

Pediatric Immunization: The percentage of children who have received the appropriate number of DPT (diphtheria-pertussis-tetanus), OPV (oral poliovirus), and MMR (measles-mumps-rubella) immunizations from birth through their second year of life.

Mammography (Breast Cancer Screening): The percentage of women between the ages of 51 and 64 who had a mammogram during the previous calendar year.

Pap Smears (Cervical Cancer Screening): The percentage of women age 18 to 64 who had a pap test during the preceding calendar year.

Eye Exam for Diabetics: The percentage of diabetics who have had a retinal examination during the preceding calendar year.

Prenatal Care: The percentage of pregnant women who began their prenatal care in their first trimester.

Low Birthweight: The percentage of infants whose birthweight is less than or equal to 2,500 grams.

Asthma: The percentage of asthma-related emergency room visits and/or inpatient hospital admissions during a calendar year.

Cesarean Section: The percentage of women who have delivered their babies via cesarean in the past year.

We thank the plans for providing this information, as defined by HEDIS 2.0 (5/93).
The data has not been verified by an outside party for its comparability or accuracy.

Source: Health Pages, Winter 1993, St. Louis Edition

D. Conclusion: Acceptance of the working hypotheses that technological limitations make the implementation of

report card systems problematic in the short term; and that report card based quality assurance systems entail significant direct and hidden costs to health care providers and health care institutions that undermine their efficacy.

This snapshot of the current state of health care quality measurement shows that policymakers want to write the book on quality before we have learned its language. The effort to develop analytical systems that accurately measure quality of care has just begun in earnest. The initial stages of this research must be completed before a massive disclosure campaign is put in place. The multi-billion dollar price tag of a national report card program urges caution in mandating disclosure until health care quality can be accurately measured. Once quality measures are available, then consumer responses to disclosure must be further examined before the report cards can be given a passing grade. The insights of cognitive psychologists into information processing, information overload, and consumer behavior, added to the lessons learned from nutrition labeling and truth in lending laws, begin that exploration.

III. Cognitive Psychology, Information Processing, and Disclosure Strategies: Lessons from Nutrition Labeling and Truth in Lending

The identification of useful health care quality

indicators would hardly give a report card system instant credibility as a quality assurance tool. Consumers must use the data in ways that reward quality care. At some level, increased disclosure becomes too complex for consumers to assimilate in a reasonable search time, too expensive for providers, and too extensive to regulate effectively.¹¹² A key step is to identify elements of disclosure that are meaningful in the decision-making process and that are not too complex or cumbersome for a system to provide. Simplifications of disclosure schemes, such as the revision of Truth In Lending Act (TILA) in the 1970s that culminated in the Truth In Lending Simplification and Reform Act (TLSRA), embody this search for a balance between the utility and magnitude of disclosure. This thesis examines the work of cognitive psychologists and marketing researchers, as well as two specific programs of consumer-directed information disclosure: nutrition labeling under the Nutrition Labeling and Education Act (NLEA),¹¹³ and disclosure of credit terms under the Truth In Lending Act (TILA).¹¹⁴

¹¹² In economic terms, this represents the point at which marginal costs of information disclosure become greater than the marginal benefits.

¹¹³ 21 U.S.C. § 343-1.

¹¹⁴ 15 U.S.C. § 1601.

A. *Heuristics, Biases, and Information Overload*

The increasing complexity of everyday life and the birth of the information age has spawned a feverish interest in how people process information. One commentator has noted that research and debate within decision-making theory and cognitive psychology produce over 250 new articles every month.¹¹⁵ But the study of how we internalize, comprehend, and act upon "objective" data is not new. In the 1950s and 1960s, pioneers such as Paul Meehl, Ward Edwards, Herbert Simon, and Jerome Bruner began to explore cognitive processes, and thus uncovered fascinating and sometimes unsettling patterns in the ways that we think. These insights into our decision-making and information-processing abilities provide a useful starting point for analyzing how health care consumers would respond to packaged quality data.

A fundamental tenet of the human mental condition is that of limits. We are limited in the amount of information we can use, and, equally important for this discussion, the manner in which we use it. The study of cognitive psychology describes the nature of these limitations.¹¹⁶

¹¹⁵ Robert P. Abelson & Ariel Levi, *Decision Making and Decision Theory*, 1 THE HANDBOOK OF SOCIAL PSYCHOLOGY 231 (Gardner Lindzey & Elliot Aronson eds., 3d ed. 1985).

¹¹⁶ According to Amos Tversky, Paul Slovic, and Daniel Kahneman, three deans of cognitive psychology, the discipline is concerned with "internal processes, mental limitations, and the way in which the processes are shaped by the limitations." Kahneman et al., *supra* note 26, at xii. A useful summary is

Ward Edwards' introduction of Bayesian analysis into psychology produced a model of rational judgment by an idealized person under conditions of uncertainty. This model provided an "optimal rule about how opinions should be revised on the basis of new information."¹¹⁷ Researchers then began to explore the adaptive processes that so often confounded the predictions of Bayesian models in actual experience. This search led to numerous biases and heuristics, or "rules of thumb," that individuals use as cognitive tools to simplify difficult mental tasks.

Ward Edwards & Detlof Von Winterfeldt, *Cognitive Illusions and Their Implications for the Law*, 59 S. CAL. L. REV. 225 (1986) (reviewing the literature on cognitive psychology and suggesting three kinds of errors a lawyer may make in an adversary system: confusion regarding the case at hand, discrediting an expert witness, and luring a decision-maker into an erroneous decision). Other interesting work on the incorporation of cognitive psychology research into the law has occurred in the courtroom context. See the discussion of "jury wobble" in Lea Brilmayer, *Wobble, or the Death of Error*, 59 S. CAL. L. REV. 363 (1986); see also Victor J. Gold, *Jury Wobble: Judicial Tolerance of Jury Inferential Error*, 59 S. CAL. L. REV. 391, 406 (1986) (defining jury wobble as the "rendition of verdicts based on inferential error"); see generally Richard Lempert, *Error Behind the Plate and In the Law*, 59 S. CAL. L. REV. 407 (1986) (criticizing Brilmayer's conclusion that "error cannot exist in the legal system in the commonsensical meaning of the word"); Robert S. Thompson, *Legitimate and Illegitimate Decisional Inconsistency: A Comment on Brilmayer's "Wobble, or the Death of Error"*, 59 S. CAL. L. REV. 423 (1986) (classifying "decisional inconsistency," which he prefers to "wobble," into inevitable inconsistency, deliberate inconsistency, bias inconsistency, careless inconsistency, defective information inconsistency, and relationship of forms of inconsistency).

¹¹⁷ Ward Edwards, *Conservatism in Human Information Processing*, in Kahneman et al., *supra* note 26, at 359. See also Ward Edwards et al., *Bayesian Statistical Inference for Psychological Research*, 70 PSYCHOL. REV. 193 (1963).

Amos Tversky and Daniel Kahneman describe three principal heuristics, representative, availability, and anchoring, that people use to process probabilistic data, as well as the systematic errors and biases that these heuristics can produce in the cognitive process.¹¹⁸ These researchers and others identify additional factors, such as framing, invulnerability, and overload, that also affect the way consumers respond to information. Each of these elements demonstrates that health care consumers might not use the report cards in the manner intended by their architects, and, therefore, that the report card system might not assure health care quality.

1. Representative Heuristics

People tend to make judgments by representativeness. In other words, they draw conclusions about "A" based on the ways in which it resembles something familiar, "B." Consider the example of a report card detailing the successful cesarean section (C-section) birth rate in a particular health plan. Using representative reasoning, consumers may incorporate an above-average successful C-section rate into a favorable judgment about the plan's quality of deliveries in general, or

¹¹⁸ The following discussion is based on Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in Kahneman et al., *supra* note 26, at 3-20, which originally appeared in 185 SCIENCE 1124 (1974). See also Kahneman & Tversky, *On the Psychology of Prediction*, in Kahneman et al., *supra* note 26, at 48-68, which originally appeared in 80 PSYCHOL. REV. 237 (1973); Maya Bar-Hillel, *Studies of Representativeness*, in Kahneman et al., *supra* note 26, at 69; see especially *id.* at 81.

about the quality of other obstetric surgeries. Consumers using such representative heuristics might likewise impute a hospital's success in coronary artery bypass graft surgery to balloon angioplasty for the treatment of atherosclerotic heart disease.

Representative heuristics create a number of biases. Representative judgments are insensitive to the prior probability of outcomes, or the base-rate frequency of events. They are insensitive to sample size, which should affect the probability of obtaining a particular result in statistical models. Representative heuristics also create an illusion of validity, which fosters unwarranted confidence in the predictive accuracy of a result based solely on the strength of the resemblance between the specific and stereotyped data.¹¹⁹ Finally, representative heuristics obscure the statistical laws of regression. That is, reasoning by representation masks the fact that a random sampling of inputs tends to converge toward a mean. Tversky and Kahneman demonstrate that, except in elementary examples, even the most sophisticated statistical researchers made systematic errors because of representative reasoning.¹²⁰

¹¹⁹ See also Stuart Oskamp, *Overconfidence in Case-Study Judgments*, in Kahneman et al., *supra* note 26, at 287-293. (discussing systematic overconfidence of psychologists in their predictive abilities about behavior of case study patients due to familiarity).

¹²⁰ Amos Tversky & Daniel Kahneman, *Belief in Small Numbers*, in Kahneman et al., *supra* note 26, at 23-31. This article appeared originally in 2 PSYCHOL. BULL. 105 (1971).

The implications of representative heuristic biases for health care quality data are significant. These biases predict that people will tend to overdraw conclusions about data from a limited situation and place unwarranted confidence in those conclusions. The coronary artery bypass graft example, noted above, highlights this danger. Bypass grafts and angioplasty are the domain of separate departments and distinct specialists (cardiothoracic surgery versus cardiology). Furthermore, bypass graft surgery is often the fallback procedure for unsuccessful balloon angioplasty. At the very least, consumers may fail to account for the complex interaction between different health care services, even though that interaction may have significant quality implications.

2. *Availability Heuristics*

Another adaptive process, the availability heuristic, also has profound implications for the way in which consumers may act on health plan quality data. This paradigm demonstrates that "people assess the . . . probability of an event by the ease with which instances or occurrences can be brought to mind."¹²¹

¹²¹ Tversky & Kahneman, *supra* note 118, at 11; Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, 5 COGNITIVE PSYCHOL. 207, 220-22 (1973) (demonstrating that test subjects overestimated probability that first names permitted unambiguous identification of sex).

Availability heuristics also lead to predictable biases. The salience, or vividness, of the retrievable experience affects the dominance of the heuristic and the degree of cognitive error. Thus, people consistently overestimate the frequency of dramatic causes of death, such as accidents, natural disasters, and homicides, as compared to less spectacular events, such as disease.¹²² Easily imagined contingencies influence reasoning more than unarticulated fears, although both events may have the same prior probability of occurring. One set of researchers characterizes this bias as a difference in the ways in which we interpret concrete and abstract data. "If people are unmoved by the sorts of dry, statistical data that are dear to the hearts of scientists and policy planners, then social and technological progress must be impeded unless effective, concrete, emotionally interesting ways of communicating conclusions are developed."¹²³

One important effect of availability heuristics is that people tend to have a particularly difficult time thinking about low probability events. On the one hand, people tend to

¹²² Paul Slovic et al., *Facts Versus Fears: Understanding Perceived Risk*, in Kahneman et al., *supra* note 26, at 466-67.

¹²³ Richard E. Nisbett et al., *Popular Induction: Information is Not Necessarily Informative*, in Kahneman et al., *supra* note 26, at 115. For additional discussion of biases inherent in availability heuristics, see Michael Ross & Fiore Sicoly, *Egocentric Biases in Availability and Attribution*, in Kahneman et al., *supra* note 26, at 179.

discount low probabilities when there is no readily retrievable, "available" experience. On the other, people overestimate probability when such experience is available. Rates of disease, operative mortality, infection, and the like are so often low that we tend to ignore or overemphasize data, thus introducing a significant cognitive bias into efforts to utilize quality information.

Availability biases predict that quality indicators tracking low probability events will have diminished impact, even if the relation of these indicators to overall quality is objectively significant. Vivid information, such as successful limb reattachments, will assume disproportionate importance over less salient events, such as infection rates. However, a person whose family member once suffered an infection after a surgical procedure will overestimate the probability of post-surgical infections, despite a surgical quality grade signalling an average rate.¹²⁴ In either case, availability biases could significantly distort the value of quality data.

3. *Anchoring Heuristics*

People also typically rely on an "anchoring" heuristic. Through anchoring, people use objective data to make adjustments from a subjectively constructed starting point.

¹²⁴ For a discussion of the applicability of availability heuristics to risk perception, see Slovic et al., *supra* note 122, at 463-84.

This preconception is developed through personal experience and influenced in the first place by representative and availability heuristics. The final probability estimates, in which people tend to have great confidence, are inevitably biased toward the initial values.¹²⁵

Anchoring biases undermine the impact of objective data. If one person begins from the proposition that the probability of malpractice is only 2%, and the actual frequency is 8%, then he will ultimately undervalue the probability of malpractice through insufficient adjustment away from his anchoring point. Similarly, someone who presupposes malpractice at 20% will systematically overestimate the actual probability despite an objective measure of 8%.

4. *Framing Effects*

In addition to heuristic processes, the manner in which information is presented has a profound effect on consumer behavior and perceptions. This "framing effect" reveals that people respond differently to equivalent questions depending on whether they are framed as losses or gains. People prefer an 80% chance of survival over a 20% chance of dying, although the two are mathematically identical. Out of the framing effect developed "prospect theory," which posits that people are risk averse in the domain of gains, risk seeking in the

¹²⁵ See *id.* at 475 (discussing heuristics, overconfidence, and hyperprecision).

domain of losses, and more sensitive to losses than to gains.¹²⁶

Although the framing effect may be more applicable to individual "point of treatment" decisions, a variation of the basic principle shows its relevance to a yearly health plan "point of insurance" choice based on quality grades. Suppose a plan's overall surgical mortality increased in one year from 1 in 10,000 to 1.5 in 10,000. Consumers would probably have a much stronger and more negative response if the data were framed as a 50% rise in surgical mortality.¹²⁷

The type of bias exemplified above could be minimized across plans by a report card with standardized presentation formats. Nevertheless, health care system framers should recognize that consumers' quality evaluations might be influenced by the "loss"-framed elements of the quality data set more than the "gain"-framed elements. Therefore, particular caution should be taken when using mortality rates as quality indicators for low risk procedures. Given our loss sensitivity, people might respond disproportionately to any mortality figures, however small, even if other, more reflective measurements of quality are available.

¹²⁶ The literature on framing effects was developed by Daniel Kahneman and Amos Tversky and is nicely summarized in Richard L. Hasen, *Efficiency Under Informational Asymmetry: The Effect of Framing on Legal Rules*, 38 UCLA L. REV. 391 (1990).

¹²⁷ Adapted from an example in Slovic et al., *supra* note 122. at 478-79.

5. *Invulnerability Biases*

Finally, a cognitive illusion of invulnerability to disease may limit the beneficial effects of quality information disclosure. Researchers have noted that people often believe themselves to be immune from risks that they nonetheless admit are significant for others.¹²⁸ This may be a defense mechanism against a complex, uncertain world filled with confusing probabilistic information, an attempt to reduce "cognitive dissonance" by ignoring disturbing data.¹²⁹ One legal scholar has labelled this effect "motivational distortion."¹³⁰ This author prefers the simpler "I won't get that" phenomenon. If healthy people feel that data about uncomfortable disease-related or care-related events are irrelevant to them, then they will make decisions based on criteria other than quality information.

6. *Information Overload*

Marketing and consumer behavior research adds another important concept to our discussion of information disclosure

¹²⁸ Paul Slovic et al., *Informing the Public About the Risks from Ionizing Radiation*, in JUDGMENT AND DECISION MAKING: AN INTERDISCIPLINARY READER 114, 116 (Hal R. Arkes & Kenneth R. Hammond, eds., 1986).

¹²⁹ See George A. Akerlof & William T. Dickens, *The Economic Consequences of Cognitive Dissonance*, 72 AM. ECON. REV. 307 (1982).

¹³⁰ Cass R. Sunstein, *Informing America: Risk, Disclosure, and the First Amendment*, 20 FLA. ST. U. L. REV. 653 (1993).

and processing - information overload. Put simply, overload theory postulates that consumers do not act as rational utility maximizers in the face of an overabundance of data; instead, they completely ignore most or all of the information presented.¹³¹ Consumers provided with too much information disregard most of it and, therefore, make objectively poorer decisions.¹³² Alternatively, consumers may unconsciously avoid overload by selectively accessing subsets of presented

¹³¹ See Jacob Jacoby et al., *Corrective Advertising and Affirmative Disclosure Statements: Their Potential for Confusing and Misleading the Consumer*, J. MKTG., Winter 1982, at 61, 70.

¹³² Jacob Jacoby et al., *Brand Choice Behavior as a Function of Information Load*, J. MKTG RES., Feb. 1974, at 63, 63-69; Jacob Jacoby et al., *Brand Choice Behavior as a Function of Information Load: Replication and Extension*, 1 J. CONSUMER RES. 33, 33-42 (1974) (confirming earlier findings of decline in purchasing performance with increasing product information load and concluding that there are finite limits to consumers' ability to accommodate substantial amounts of data within limited time span). See also Debra L. Scammon, *"Information Load" and Consumers*, 4 J. CONSUMER RES. 148, 148-55 (1977) (finding that increased information load causes consumers to divide their attention and results in poorer recall; further, increased information load may impart more knowledge but has little demonstrable effect on attitudes, behavior, or brand preference); James R. Bettman et al., *Cognitive Considerations in Designing Effective Labels for Presenting Risk Information*, 5 J. PUB. POL'Y & MKTG. 1, 7 (1986) (pointing out that main issue in presenting information on warning labels is to present sufficient information for informed choices but not so much that consumers process it selectively and suboptimally); Naresh K. Malhotra, *Information Load and Consumer Decision Making*, 8 J. CONSUMER RES. 419, 427 (1982) (finding support for theory of information overload in the literature on memory, information theory; criticizing Jacoby's original research design but supporting the conclusion that consumer decision-making can suffer from information overload).

information.¹³³ As a result, choices are based on a fraction of the necessary data.

One study refined the overload paradigm and found that decision effectiveness, defined as the ability to make optimal choices among alternatives in a set, varied directly with information quality and inversely with information quantity.¹³⁴ Other studies have suggested that optimal levels of information disclosure will vary with type of consumer population and type of information presented (graphic, verbal, and numerical).¹³⁵

The description of information overload in the marketing literature initially focused on product labeling, but overload analysis is also applied to warning labels¹³⁶ and has entered the legal literature in discussions of new home warranties,¹³⁷ mortgage rules,¹³⁸ prescription drug

¹³³ Jacob Jacoby, *Perspectives on Information Overload*, 10 J. CONSUMER RES. 432, 435 (1984); but cf. Naresh K. Malhotra, *Reflections on the Information Overload Paradigm in Consumer Decision Making*, 10 J. CONSUMER RES. 436, 439 (1984) (arguing that consumers can and will become overloaded).

¹³⁴ Kevin Lane Keller & Richard Staelin, *Effects of Quality and Quantity of Information on Decision Effectiveness*, 14 J. CONSUMER RES. 200, 200-213 (1987).

¹³⁵ Jacoby et al., *supra* note 132, at 41 (1974); Naresh K. Malhotra et al., *The Information Overload Controversy: An Alternative Viewpoint*, J. MKTG., Spring 1982, at 27, 35.

¹³⁶ WESLEY A. MAGAT & W. KIP VISCUSI, *INFORMATIONAL APPROACHES TO REGULATION* 90-105 (1992).

¹³⁷ Jeff Sovern, *Toward a Theory of Warranties in Sales of New Homes: Housing the Implied Warranty Advocates, Law and Economics Mavens, and Consumer Psychologists Under One Roof*, 1993 WIS. L. REV. 13.

information under the Food and Drug Act,¹³⁹ nutrition labeling, and truth in lending disclosure.¹⁴⁰

Advertising research further clarifies the overload paradigm. In one study of physician advertisements, the authors found surprisingly little variation in consumer response to low and high information ads. One possible explanation offered was that "people may experience a sensory overload in the processing of health care communication."¹⁴¹

Recognition of limiting factors, such as overload and heuristic biases, leads to the conclusion that data disclosure is only a first step towards a consumer protection or quality assurance goal. Disclosure of objective quality measurements will be ineffective and possibly counterproductive, unless such cognitive distortions are adequately addressed.

¹³⁸ William N. Eskridge, Jr., *One Hundred Years of Ineptitude: The Need For Mortgage Rules Consonant with the Economic and Psychological Dynamics of the Home Sale and Loan Transaction*, 70 VA. L. REV. 1083 (1984); George J. Wallace, "Explicit Pricing," *Fraud, and Consumer Information: The Reform of RESPA*, 12 RUTGERS L.J. 183, 197-98, 206-207 (applying overload analysis to consumer misunderstanding of real estate closing costs).

¹³⁹ Comment, *Pharmaceutical Manufacturers and Consumer-Directed Information – Enhancing the Safety of Prescription Drug Use*, 34 CATHOLIC U. L. REV. 117, 145-47 (1984) (concluding that fears of information overload should not prevent disclosing drug information to consumers as well as physicians).

¹⁴⁰ See discussion *infra* part III.B-C.

¹⁴¹ Cobb-Walgren & Dabholkar, *supra* note 68, at 55.

B. *The Relevance of Cognitive Psychology and Information Overload to Health Care Policy: The Pitfalls of Satisficing Behavior in a Quality Assurance Program*

The theory of information overload and the relevance of cognitive psychology to policymaking remain hotly debated. Some critics contend that more information always aids the consumer in making choices and that information overload never occurs.¹⁴² Others argue that consumers can actually process a great deal of information, but that some definite limits exist. The more common limiting factor, they contend, is not the consumer's ability to process information, but rather willingness to process information.¹⁴³ Yet another interpretation of the evidence holds that consumers may not overload, but instead may not "load" information at all due to anxiety and a desire to avoid dense textual information.¹⁴⁴

While cognitive psychologists provide interesting descriptions of the limitations on our processing abilities, critics argue that their work is only marginally relevant to policymaking on information disclosure. These critics describe consumers as quasi-rational actors, limited by

¹⁴² J. Edward Russo, *More Information is Better: A Reevaluation of Jacoby, Speller and Kohn*, 1 J. CONSUMER RES. 68, 71-72 (1974) (arguing that confusion decreased with increased data, as long as subjects took enough time to process the information); John O. Summers, *Less Information Is Better?*, J. MKTG RES., Nov. 1974, at 467, 467-68.

¹⁴³ Malhotra et al., *supra* note 135, at 27-37.

¹⁴⁴ Melvin Aron Eisenberg, *Text Anxiety*, 59 S. CAL. L. REV. 305, 310 (1986).

cognitive constraints.¹⁴⁵ This quasi-rational consumer "satisfices" (a term of art coined to describe consumer activity whereby a person reaches the best decision he can given the circumstances) instead of "optimizes." Satisficing behavior results in choosing the best alternative from a non-exhaustive search when search costs are high. These critics dismiss cognitive psychology's contribution to policy formation because they believe that gap between the satisficed and optimal choice is simply too narrow to justify extensive government regulation of most markets that are plagued by information asymmetries.¹⁴⁶

These critics contend that the competitive market acts as a safety net for our internal cognitive limitations. The systematic mental errors that individuals make when faced with raw data, they argue, do not translate into worrisome market

¹⁴⁵ Hasen, *supra* note 126, 126, at 392.

¹⁴⁶ David M. Grether et al., *The Irrelevance of Information Overload: An Analysis of Search and Disclosure*, 59 S. CAL. L. REV. 277, 277-303 (1986). See also Roberta Romano, *A Comment on Information Overload, Cognitive Illusions, and Their Implications for Public Policy*, 59 S. CAL. L. REV. 313, 313-327 (1986) (agreeing with Grether et al. that information overload is not significant issue in consumer law); Robert E. Scott, *Error and Rationality in Individual Decisionmaking: An Essay on the Relationship Between Cognitive Illusions and the Management of Choices*, 59 S. CAL. L. REV. 329, 329-37, 361 (1986) (arguing that information overload and cognitive error are less relevant to legal analysis of consumer behavior than choice management theory, in which consumers follow a rational pre-set strategy of self-control; also arguing that the psychological literature on human error and decision-making leads legal analysts to the incorrect conclusion that inherently fallible behavior is correctable through legal regulation).

failures. Rather, the market absorbs heuristics and biases in two basic ways. First, so long as a few, vigilant, sophisticated consumers can interpret the data, they effectively police the market for all consumers. Second, consumers can accurately value their own experience with a product despite cognitive constraints in evaluating its objective characteristics, and can thus reward good producers with repeat business.¹⁴⁷

1. *Price, Satisfaction, and Quality: Distinct Dimensions of the Market Safety Net*

But the market safety net that critics of cognitive psychology describe solves only part of the problem in health care quality assurance. Put simply, it is a satisfaction and cost safety net, but not a quality safety net. If, in the course of a non-exhaustive, cognitively constrained, search, satisficing consumers choose plans based on geographic convenience, waiting time to appointment, and staff pleasantries, as early evidence suggests, then the market will reward plans that fulfill these needs. This safety net only protects against failure in the satisfaction market. With regard to cost, the standardization of the benefits packages and publication of annual enrollment fees allows consumers to make apples-to-apples comparisons between plan services and to shop based on price. But this safety net only protects

¹⁴⁷ Grether et al., *supra* note 146, 146, at 277-303.

against failure in the price market.

For the most important goal of the report card program, quality assurance, there is no safety net. Satisfaction and quality are complimentary, but one does not guarantee or perfectly predict the other. Policymakers, therefore, want report cards to create a market for quality. However, in addition to the fact that we do not yet know what to measure, we also do not know if consumers will choose according to quality factors rather than satisfaction factors when given both types of data.

The appeal to corporate benefits managers, who are particularly sensitive to employee perceptions, of relying heavily on satisfaction data is undeniable. In praising the Health Institute's *Employee Health Care Value Survey*, one Xerox executive noted that the results of consumer satisfaction surveys could provide the basis for discontinuation of the company's relationship with a particular plan.¹⁴⁸ That this might be the case is not surprising, since management is sensitive to worker preferences in a number of areas besides health benefits. Considered in this light, decisions regarding "point of insurance" choices are quality decisions only to the extent that satisfaction approximates quality; marketing research has shown that the scope of that overlap in health care is

¹⁴⁸ Adam Peck, *Employees Rate Health Plan Options*, MANAGED HEALTHCARE, Dec. 1993, at 36, 36 (quoting Judd Everhart).

completely unclear. The important point is not that such decision making is invalid, because it is not, but rather that we should not misconstrue it as quality assurance. Admittedly, if free substitution between quality and satisfaction is ever established, then this approach to quality assurance represents a substantially lower cost alternative to not only to the comprehensive report card systems proposed in legislation, but to all other quality assurance programs as well.

If, however, identity between satisfaction and quality is less than perfect, then simply including both sets of data in the same document will not cure the defect. Put simply, if disclosed information related to satisfaction guides consumer choice more persuasively than quality data, then report cards will never perform the quality assurance role that has been predicted for them. Even if consumers do load the quality data, processing biases will confound consumer quality choices; cognitive errors could minimize the market share rewards for meeting typically de-emphasized quality benchmarks or they could exaggerate the penalties for missing over-emphasized ones. The heuristics, biases, and information overload paradigms described by cognitive psychologists and marketers are directly relevant to health care policymakers precisely because they reveal the quality hole in the market safety net. That hole should make us hesitant about claiming that the report cards will be a powerful quality assurance

mechanism.

The distinction between assuring satisfaction and quality is crucial. Critics of cognitive psychology, like David Grether, Alan Schwartz, and Louis Wilde, discount internal processing difficulties because satisficing consumers, they argue, do not ignore relevant information to the extent that it would discourage optimally satisfying choices.¹⁴⁹ But arguing that cognitive constraints are similarly irrelevant in the health care report card context proves the wrong point. The main issue in applying cognitive limitations to an analysis of the disclosures in the report card proposal is not their effects on consumer satisfaction. As Grether, Schwartz, and Wilde would explain, despite any biases in processing data, report cards certainly have the potential to increase satisfaction as long as the new health care market becomes competitive. Instead, cognitive limitations are vitally relevant to the quality assurance aspect of report cards in health care information disclosure. Satisfaction plays into quality assurance only insofar as the data satisficing consumers use can also serve as quality proxies. Since we have not yet developed a range of reliable quality proxies, the report cards cannot possibly rationally reflect quality. Even once those proxies are developed from the intense research described in Part II, if report cards are to function

¹⁴⁹ Grether et al., *supra* note 146, 146, at 284-94. See also Romano, *supra* note 146, 146, at 313-327.

as a quality assurance program then the task becomes that of designing disclosure so that satisficing decisions double as quality decisions. Understanding the heuristics, biases, and information quantity limitations described by cognitive psychologists – in other words, understanding the components of our satisficing decisions rather than simply their effects on satisfaction – is the only way to assure this overlap and turn the report cards into a quality assurance tool.

2. *Policy Implications for Report Card Systems:*

Acceptance of the working hypotheses 4) that evidence from the disciplines of cognitive psychology and marketing shows that even well constructed, technically sound health care report cards would yield fatally flawed quality assurance systems; and 5) that severe knowledge deficits regarding the useful content of health care report cards and confusion between ensuring consumer satisfaction and measuring quality renders them inappropriate as quality assurance tools at this time.

If consumers would misinterpret, overload, or fail to load, in the face of complex health care quality data, then we must be cautious about what we expect report cards to do. If report card disclosure requirements are selected with the economic, rational utility-maximizing consumer in mind, they

might disserve the satisficing consumer. Report cards would not be powerful quality or cost containment tools if people tend to ignore them. Even worse, over-inclusive information disclosure may be a counter-productive quality tool if the satisficing consumer fixates on parts of the data set that do not independently reflect quality.¹⁵⁰ Furthermore, if providers recognize that consumers are basing choices only on specific subsets of the data, then economics dictates that providers will alter their behavior to meet those benchmarks. Many HMOs, for instance, not only measure physician-specific satisfaction data, but base compensation and bonus money on patient satisfaction rates. Therefore, it is clear that the satisficing decisions – whether or not they reflect quality – are the ones that translate into rewards of market share.¹⁵¹ Consumers are neither rational utility-maximizers nor wholly irrational impulse buyers; characterizing the middle ground in each market is a prerequisite to an information disclosure program aimed at guaranteeing quality. Faith in report cards as the foundation of a quality assurance program without a

¹⁵⁰ For instance, waiting time for appointments is important to the satisficing consumer. A point of insurance decision based on waiting time may be valid for that consumer, but it only rewards quality care if waiting time is independently reflective of quality care. See *supra* discussion in part II.

¹⁵¹ Overall, 60% of HMOs collect physician-specific patient satisfaction data. 60% of HMOs that collect physician specific enrollee satisfaction use the scores as part of the physician compensation/bonus program. *HMOs Put Satisfaction Data to Work*, MODERN HEALTHCARE 82 (July 24, 1995).

clear understanding of the relationship between disclosed price, satisfaction, quality information, and consumer behavior is badly misplaced.

With this theoretical background of information disclosure and consumer cognitive response as our foundation, the discussion now turns to nutrition labeling and truth in lending disclosure in an attempt to demonstrate the validity of the working hypotheses when applied to existing consumer-directed information disclosure programs.

C. *The Nutrition Labeling and Education Act*

The modern regulatory system governing the food industry stems from the Federal Food, Drug, and Cosmetic Act of 1938. Section 341 of the Act authorizes the Food and Drug Administration (FDA) to prohibit the mislabeling of food; section 343 defines mislabeled foods to include any item not in compliance with the Nutrition Labeling and Education Act of 1990 (NLEA).¹⁵²

Under the NLEA, Congress and the FDA have embarked on an ambitious attempt to use informational strategies to modify consumer behavior. Amendments which went into effect on May 8, 1994, make nutrition labeling mandatory for all products

¹⁵² Pub. L. No. 75-717, 52 Stat. 1040 (1938) (amended by 21 U.S.C. §§ 301-393 (1993)).

intended for human consumption and offered for sale.¹⁵³ This effort complements the regulation of package labeling, in which Congress requires food producers to meet FDA definitions of common terms, like "free," "low," "lite," "reduced," "fresh," and "high."¹⁵⁴ Assertions about positive health claims are permitted only if they are supported by scientific evidence and communicate clear and complete information about the links between calcium and osteoporosis, lipids and cancer, sodium and hypertension, cholesterol and heart disease, fiber and cancer, or fruits and vegetables and cancer.¹⁵⁵

With respect to information disclosure directly concerning nutritional content, the statutory provisions of the NLEA are quite specific. Food is deemed mislabeled by the statute unless its label bears nutritional information that provides standard serving size in an amount customarily consumed, the number of servings per container, the total number of calories derived from any source and the number derived specifically from fat per serving size, the amount of total fat, saturated fat, cholesterol, sodium, total carbohydrates, complex carbohydrates, sugars, dietary fiber, total protein per serving, and any vitamin or mineral. The

¹⁵³ 58 Fed. Reg. 2175 and 58 Fed. Reg. 17328 (1993) (to be codified at 21 C.F.R. § 101.9) (effective May 8, 1994).

¹⁵⁴ 21 U.S.C. § 343(r); Fair Packaging and Labeling Program, 15 U.S.C. §§ 1451-1461 (1988), amended by 15 U.S.C. §§ 1453-1454 (Supp. IV 1992).

¹⁵⁵ 21 C.F.R. §§ 101.72-101.78 (1993).

goal of this lengthy disclosure is to "assist consumers in maintaining healthy dietary practices." The FDA, through the Secretary of Health and Human Services, may require additions to or deletions from the nutritional information disclosure list if that assists consumers in maintaining healthy dietary practices. The statute also gives the Secretary authority over the presentation format of the nutritional information; she can promulgate regulations that require highlighting, specific typefaces, or color schemes to assist consumers in spotting the information.¹⁵⁶

The FDA regulations promulgated under the statute are even more extensive and specific. This degree of specificity extends both to content and presentation. For instance, the nutrition label must be contiguous and to the right of the principal display panel of a packaged food, and the letters and numbers must be no less than one-sixteenth inch in height.¹⁵⁷

Nutrition labeling constitutes an extensive section of the federal regulations. "Serving" is defined precisely as that "reasonable quantity of food suited for or practicable of consumption as part of a meal by an adult male engaged in light physical activity, or by an infant or child under 4

¹⁵⁶ 21 U.S.C. §343(q); Nutrition Labeling of Food, 21 C.F.R. § 101.9 (1993); 21 C.F.R. § 101.12 (1993) (listing major product categories and reference amounts customarily consumed per eating occasion).

¹⁵⁷ Information Nutrition of Package Form Food, 21 C.F.R. § 101.2 (1993).

years of age when the article purports or is represented to be for consumption by an infant or child under four years of age.¹⁵⁸ Nutrition labels must list specified information in a prescribed order: serving size, servings per container, total calories (determined by the Atwater method described in the USDA Handbook No. 74), calories from fat, calories from saturated fat (voluntary), total fat, saturated fat, polyunsaturated fat (voluntary), monounsaturated fat (voluntary), cholesterol, sodium, potassium (voluntary), total carbohydrates, dietary fiber, sugars, sugar alcohol (voluntary), other carbohydrates (voluntary), protein, and percentages of U.S. Recommended Daily Intakes (RDI) expressed as a percentage of daily value (DRV) of at least vitamin A, vitamin C, calcium, and iron based on a reference caloric intake of 2,000 calories.¹⁵⁹

The regulations standardize the presentation of nutritional information. It must be set off in a box and printed in one color on a white or neutral background. The box must display the identifying heading "Nutrition Facts" in large type, followed immediately by serving size, servings per container, and calories per serving. The box must contain two columns, one listing the nutrient and quantitative weight in grams or milligrams, and the other displaying the percentage of the daily value. A footnote must contain the statement:

¹⁵⁸ 21 C.F.R. § 101.9.

¹⁵⁹ *Id.*

"Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs."¹⁶⁰ Nutrition information can appear "as purchased" and "as prepared" on the same item of food with slight modifications to the standard label.¹⁶¹ Simplified labels may suffice on food products containing insignificant amounts of seven or more of the required nutritional elements.¹⁶² Sample labels (included in Appendix F) are provided in the regulations themselves, and the FDA strongly recommends graphic specifications, including different Helvetica typeface point sizes for different parts of the label and offsets for the box borders.¹⁶³

Several important lessons for the discussion of health plan report cards emerge from experience with the NLEA. The first and most encouraging lesson is that it appears that this type of information disclosure, supported by a public education campaign about healthy dietary habits, can raise consumer consciousness about the nutritional content of their foods. How consumers act on that information is less clear. In other words, we have little data about the ways in which consumer dietary habits are modified by the new information

¹⁶⁰ *Id.* § 101.9(d).

¹⁶¹ *Id.* § 101.9(e) (1993).

¹⁶² *Id.* § 101.9(f).

¹⁶³ Examples of Graphic Enhancements Used by the FDA, Appendix B to Part 101, 21 C.F.R. § 101, Appendix B (1993).

they possess. Whether Americans will eat better, now that many know what is in the food, is a major focus of public health research.

Past experience with product warning labels and other educational campaigns gives cause for some caution before predicting success. In a widespread government education campaign in the early 1980s about seat belt use, people understood that seat belts reduced car accident fatalities, but actual seat belt use increased negligibly from 11.3% to 13.9%.¹⁶⁴ Consumers may respond to information in even more unpredictable ways. A California State law requiring cancer warning labels on certain products may have actually confused consumers into thinking that some products were more dangerous than they actually were.¹⁶⁵

The second lesson is that it seems clear that information disclosure about nutritional content is relevant only to a sub-population of consumers;¹⁶⁶ the overall effect on

¹⁶⁴ Robert S. Adler and R. David Pittle, *Cajolery or Command: Are Education Campaigns an Adequate Substitute for Regulation?*, 1 YALE J. ON REG. 159, 176 (1984).

¹⁶⁵ See W. Kip Viscusi, *Predicting the Effects of Food Cancer Risk Warnings on Consumers*, 43 FOOD DRUG COSM. L.J. 283 (1988) (discussing the impact of California's Proposition 65); W. KIP VISCUSI, *PRODUCT-RISK LABELING: A FEDERAL RESPONSIBILITY* 11-16, 65-69 (1993).

¹⁶⁶ One study of the effects of saccharin warning labels found that saccharin containing soft drink use declined in some populations, but remain unchanged in others, particularly the elderly. See Schucker, R.E., et al., *The Impact of the Saccharin Warning Label on Sales of Diet Soft Drinks in Supermarkets*, 2 J. PUB. POL'Y & MKTG. 46, 46-56 (1983).

population-wide dietary behavior is unclear. As commentators on the information overload controversy have noted, consumer motivation to engage in time-intensive searches varies. One can conclude that the NLEA has no impact on unmotivated consumers, except to the extent that food producers have improved the nutritional content of their products to avoid revealing embarrassing unhealthy attributes of their products. In this limited regard, the benchmarking inherent in the NLEA disclosure scheme promotes nutritional health, although via producers rather than informed consumers. Still, there clearly remains a significant market for less healthy foods, and information disclosure may simply have created a sub-market for "lite" and "reduced" foods in addition to other foods.

The structure of the health care market may spread the benefits of quality searching more broadly than the food market does for nutritional information. The vigilance of some consumers who extensively research quality among plans may raise the quality boat for all. However, this conclusion is not automatic. If, for example, further research into consumer "point of insurance" decision-making confirms that price and waiting time for appointments overwhelm more subtle quality indicators, then low quality plans can still flourish as long as they meet the yardsticks that are important to consumers.

The third lesson is that information disclosure

strategies like the NLEA are expensive. From the government's side, translation of the statutory provisions of the NLEA into FDA regulations was called one of the most "resource-intensive," meaning expensive, efforts in FDA history.¹⁶⁷ The costs to industry were even more significant. Compliance entails testing of food lots, altering package production lines, and cooperation with regulatory inspections. The government estimated the new labeling rules will cost industry \$1.7 billion over twenty years. Industry leaders claimed that the first-year costs alone would exceed \$2 billion.¹⁶⁸ Most of these costs are naturally passed on to consumers.

The final lesson is that an appreciation of the length and specificity of the statutory and regulatory scheme leads to the most significant lesson for the health care report cards. In crafting and implementing the NLEA, both Congress and the FDA could rely on the scientifically verifiable relevance of measurable data to good nutrition. We can measure what goes into food, and we *know*, at this stage in the development of nutritional science, that certain inputs like fat, protein, sodium, and vitamins have direct links to

¹⁶⁷ Fred R. Shank, *The Nutrition Labeling and Education Act of 1990*, 47 FOOD AND DRUG L.J. 247 (1992) (author is Director, Center for Food Safety and Applied Nutrition of FDA).

¹⁶⁸ Nancy Ryan & Linda M. Harrington, *FDA Offers New Rules on Food Labels, Claims*, CHI. TRIB., Nov. 7, 1991, at C2.

nutritional outcomes.¹⁶⁹ This knowledge is indeed a necessary first step, before we even consider how consumers will act upon that information. Part II described how dauntingly large that necessary first step is in health care quality measurement.

D. *Truth In Lending*

The story of the Truth in Lending Act (TILA) is another instructive tale for the health care report card effort. Enacted in 1968 as Title 1 of the Consumer Credit Protection Act,¹⁷⁰ TILA required all sources of consumer credit to disclose the annual percentage rate (APR) and the dollar finance charges for any credit transaction. Before the Act, lenders could quote interest rates in any non-deceptive format, and many in fact used different formulas to calculate rates. Since consumers could not compare different loans, Congress feared that people borrowed at rates that were higher than predicted for a competitive market for lending.¹⁷¹ The avowed purpose of TILA was to "assure a meaningful disclosure

¹⁶⁹ See Shank, *supra* note 167, 167, at 247-49 (describing advancement of nutritional sciences in post-WWII era). As far as our understanding of the relationship between nutrition and health has come, there is still room for improvement. For example, the FDA has not established RDVs for many trace mineral elements because we do not yet understand their importance. See Beales et al., *supra* note 51, 169, at 525.

¹⁷⁰ 15 U.S.C § 1601.

¹⁷¹ See Sovorn, *supra* note 123, at ? (citing Robert L. Jordan & William D. Warren, *Disclosure of Finance Charges: A Rationale*, 64 MICH. L. REV. 1285, 1293-94 (1966)).

of credit terms so that the consumer will be able to compare more readily the various credit terms available to him and avoid the uninformed use of credit, and to protect the consumer against inaccurate and unfair credit billing and credit card practices."¹⁷²

Congress anticipated that standardized disclosure of credit terms would substantially modify consumer behavior in two fundamental ways. First, standardization would encourage consumers to "credit shop" — comparison shop for credit based on the price of that credit. Credit shopping, in turn, would increase competition among credit sources to attract these well-informed consumers. Second, disclosure of the real costs of credit would encourage consumers to use credit wisely by opting for cheaper cash payments or by postponing overly expensive purchases.¹⁷³

Like the NLEA, but in marked contrast to the Health Security Act, TILA includes a fairly precise description of the information required in the disclosure. Section 1605 sets out an inclusive definition of the finance charge as "the sum of all charges, payable directly or indirectly by the person to whom the credit is extended, and imposed directly or indirectly by the creditor as an incident to the extension of

¹⁷² 15 U.S.C. §1601.

¹⁷³ See George S. Day & William K. Brandt, *Consumer Research and the Evaluation of Information Disclosure Requirements: The Case of Truth In Lending*, 1 J. CONSUMER RES. 21, 21-32 (1974).

credit." The finance charge includes the interest, time price differential, any amount payable under a point or discount charge, service or carrying charge, loan fee, finder's fee, and premium for default insurance.¹⁷⁴ Although the Federal Reserve Board may prescribe methods of calculation, section 1606 specifies that the annual percentage rate (APR) must yield:

a sum equal to the amount of the finance charge when it is applied to the unpaid balances of the amount financed, calculated according to the actuarial method of allocating payments made on a debt between the amount financed and the amount of the finance charge, pursuant to which a payment is applied first to the accumulated finance charge and the balance is applied to the unpaid amount financed.¹⁷⁵

The statute establishes special rules for open-end consumer credit plans, such as credit card arrangements. Section 1602 defines an open-end credit plan as one under which "the creditor reasonably contemplates repeated transactions . . . and which provides for a finance charge which may be computed from time to time on the outstanding unpaid balance."¹⁷⁶ The creditor must disclose the conditions under which a finance charge will be imposed, the

¹⁷⁴ 15 U.S.C. §1605(a).

¹⁷⁵ 15 U.S.C. § 1606(a)(1)(A). Regulation Z describes the APR as "the measure of the cost of credit, expressed as a yearly rate, that relates the amount and timing of value received by the consumer to the amount and timing of payments made. Appendix J to Regulation Z provides equations for calculating the APR. Regulation Z, Determination of Annual Percentage Rate, 12 C.F.R. § 226.22 and app. J (1993).

¹⁷⁶ 15 U.S.C. § 1602(i).

method of determining the balance upon which a finance charge will be imposed, the method of determining the finance charge itself, including a description of the nominal APR, a description of any other charges, and an explanation of security interests taken.¹⁷⁷

The statute also describes the content and format of information disclosure in closed-end and open-end credit card applications; the timing of this disclosure requirement more closely resembles the "point of service" information disclosure proposed for the health plan report cards. Solicitations to acquire open-end credit must include, in tabular format, the APR and specific disclosure if it is subject to a variable rate, annual or other fixed fees, the length of the grace period during which no finance charge is applied, and the name or explanation of the balance calculation method used to determine the balance upon which the finance charge is applied, the cash advance fee, late fee, and over-the-limit fee.¹⁷⁸ Disclosure of terms for closed-end credit secured by a consumer's principal dwelling (home equity credit) requires even more extensive disclosure.¹⁷⁹

Initial reaction to TILA disclosures was mixed. The first area of debate concerned the quantity of information disclosed under the statute. Critics of the original Truth In

¹⁷⁷ 15 U.S.C. § 1637.

¹⁷⁸ 15 U.S.C. § 1637(c).

¹⁷⁹ 15 U.S.C. § 1637a.

Lending Act charged that Truth-in-Lending disclosures overwhelmed consumers with too much complicated information, and ultimately discouraged them from credit shopping.¹⁸⁰ This argument embodied the concept information overload. In describing how disclosure under the old TILA had gotten "out of control", one author cites the lengthy and nearly incomprehensible disclosure of debt acceleration and default charges.¹⁸¹ Studies demonstrated that simplification of the disclosure terms increased understanding among consumers.¹⁸²

The Senate began to consider TILA reform in 1977. The Senate Banking Committee heard testimony from members of the Federal Reserve Board of Governors and expert opinion suggesting that existing TILA disclosure overwhelmed consumers by causing information overload. Information overload

¹⁸⁰ Jeffrey Davis, *Protecting Consumers from Overdisclosure and Gobbledygook: An Empirical Look at the Simplification of Consumer-Credit Contracts*, 63 VA. L. REV. 841, 843-56 (1977) (using overload analysis to criticize TIL disclosures and arguing for simplification); Jonathan M. Landers & Ralph J. Rohner, *A Functional Analysis of Truth In Lending*, 26 UCLA L. REV. 711, 721-34 (1979) (disclosure statement meaningless for average consumer); Jonathan M. Landers, *Some Reflections on Truth in Lending*, 1977 ILL. L.J. 669, 677 (1977) (intricacies of statute and Regulation Z prevent consumers from knowing whether they have TIL claim in credit transaction disputes); Ndiva Kofele-Kale, *The Impact of Truth-In-Lending Disclosures on Consumer Market Behavior: A Critique of the Critics of Truth-In-Lending Law*, 9 OKLA. CITY U. L. REV. 117, 128-132 (1984) (summarizing overload studies in TIL and noting that age, race, formal education, income, and credit experience correlate with overloading).

¹⁸¹ Joseph K. Heselton et al., *Truth In Lending Disclosure in Open and Closed End Credit*, 9 OKLA. CITY U. L. REV. 17, 38 (1984).

¹⁸² See Davis, *supra* note 180, 180, at 869.

criticism eventually became a motivating force behind reform.¹⁸³ Congress responded in 1980 by enacting the Truth In Lending Simplification and Reform Act (TILSRA), which eliminated some disclosures and simplified others.¹⁸⁴ Several changes made under TILSRA include reduced description of security interests,¹⁸⁵ nondisclosure of several types of fixed fees,¹⁸⁶ and elimination of the use of required terminology.¹⁸⁷

Congress gave the Federal Reserve Board authority to prescribe any regulations necessary to carry out the purposes of TILA; creditors and lessors were statutorily obligated to

¹⁸³ *Simplify and Reform the Truth in Lending Act: Hearings on S. 3212, S. 1501, & S. 1653 Before the Subcommittee on Consumer Affairs of the Senate Committee on Banking, Housing and Urban Affairs*, 95th Cong., 1st Sess. 7-12 (1977) (statements of Philip C. Jackson on behalf of the Board of Governors of the Federal Reserve System and testimony of Dr. Steven Permut of Yale University School of Organization and Management); *Simplification of the Truth in Lending Act Oversight Hearings Before the Subcommittee on Consumer Affairs of the House Committee on Banking, Finance, and Urban Affairs*, 95th Cong., 2d Sess. 369-70 (1978); *Report of the Committee on Banking, Housing, and Urban Affairs*, S. Rep. No. 96-73, 96th Cong., 1st Sess. (1979) (concluding that TIL disclosure statements were ineffective communication devices because they were lengthy, legalistic, and disorganized).

¹⁸⁴ *Truth in Lending Simplification and Reform Act of 1980*, Pub. L. No. 96-221, 94 Stat. 168, 168-85 (codified as amended in scattered sections of 15 U.S.C.).

¹⁸⁵ Regulation Z, 12 C.F.R. §226.18(m) (1994).

¹⁸⁶ Regulation Z, 12 C.F.R. § 226.6(b) (1993).

¹⁸⁷ Regulation Z contains only two terminology requirements: "finance charge" and "annual percentage rate." 12 C.F.R. § 226.7(f) and (g).

comply.¹⁸⁸ The statute also required the Board to publish model disclosure forms and clauses for common transactions.¹⁸⁹ The Federal Trade Commission (FTC) is the enforcement agency for violations.

Regulations promulgated by the Federal Reserve Board augment the specificity of the statutory provisions of TILA. The implementing regulation is commonly called Regulation Z.¹⁹⁰ The most visible consumer-directed products of the TILA and TILSRA regulations are the "federal box" and the model forms. The federal box presents disclosure in a standardized format of limited terms that are presumably significant for the typical consumer shopping for a loan.¹⁹¹ It must be set aside from other information so as to be in a "conspicuous and prominent location" through dividing lines or offsetting color backgrounds. The terms "annual percentage rate" and "finance charge" must be displayed more conspicuously than other terms.¹⁹² The box must also identify the creditor, the amount financed using plain English descriptions, the manner of computing the APR, any finance

¹⁸⁸ 15 U.S.C. §1604.

¹⁸⁹ 15 U.S.C. §§ 1607, 1631.

¹⁹⁰ Truth in Lending, 12 C.F.R. §§ 226.1-226.30 and appendices (1994).

¹⁹¹ Regulation Z, 12 C.F.R. §§ 226.17(a)(1), 226.18 (1994).

¹⁹² 15 U.S.C. § 1632 (1993); Regulation Z, 12 C.F.R. §§ 226.5(a)(1-2), 226.17 (1994); a model payment box is required by 12 C.F.R. § 226.17(a) (1994).

charge with a description of some excluded charges, circumstances under which the APR may increase, limitations on that increase, an example of the effects of an increase, the number and timing of payments, total payments, any prepayment penalties, late payment charges, and security interests taken.¹⁹³

In order to prevent information overload within the box, only specifically required and directly related information may appear. Other terms may be provided in the body of the credit contract. For example, an itemization of the elements of the amount financed must be separate from the box.¹⁹⁴ The Board provides model disclosure forms in the appendices to Regulation Z (see Appendix G for copies of model forms for credit card applications, home equity loans, and disclosure of terms in credit sales).

Even though information overload played a prominent role in the discussions leading up to TILSRA, some argue that disclosure of credit terms remains confusing and too complex. One group of commentators connected to the Federal Reserve Board has noted that the disclosure regarding adjustable rate mortgages is too extensive and suggests that the lesson of

¹⁹³ The specific disclosures in the Federal Box and the different terms required in different types of credit transactions are covered in the extensive regulations of Regulation Z: closed-end credit 12 C.F.R. §§ 226.17-226.18 (1994); credit and charge card applications 12 C.F.R. § 226.5a (1994); home equity plans 12 C.F.R. § 226.5b (1994).

¹⁹⁴ Regulation Z, 12 C.F.R. §§ 226.17(a)(1)-226.18(c) (1994).

keeping things simple needs to be relearned.¹⁹⁵

The FTC was quick to declare TILA to be one of the most successful consumer protection statutes, citing increases in consumer awareness of the APR and increased market share held by low cost lenders.¹⁹⁶ A Senate report in 1980 concluded that after ten years under TILA, "there is a heightened awareness among consumers as to the cost of borrowing from various types of lending institutions."¹⁹⁷ In 1987, the Federal Reserve Board's Annual Percentage Rate Demonstration Project demonstrated that the dispersion of interest rates declined in markets in which "shopper's guides" listing APRs had been published.¹⁹⁸

Early research did find some improved knowledge of credit rates and charges, but evidence indicated that the majority of consumers remained uninformed or misunderstood the APR.¹⁹⁹

¹⁹⁵ Griffith L. Garwood et al., *Consumer Disclosure in the 1990s*, 9 GA. ST. U. L. REV. 777 (1993) (commenting on Regulation Z, 12 C.F.R. §§ 226.5b(d)(12)(xi), 226.19(b)(2)(viii) (1994)).

¹⁹⁶ F.T.C. OFFICE OF POLICY PLANNING AND EVALUATION, CONSUMER FINANCIAL SERVICES POLICY SESSION 29 (1979). One consumer survey found an increase in the awareness of typical credit rates from 14.5% to 54.5% for closed-end credit and 30.9% to 68.0% for open-end credit between 1969 and 1977. THOMAS A. DURKIN AND GREGORY E. ELLIEHAUSEN, 1977 CONSUMER CREDIT SURVEY (Fed. Res. Bull. 1978).

¹⁹⁷ S. Rep. No. 96-73, 96th Cong., 2d Sess. 2 (1979).

¹⁹⁸ Garwood et al., *supra* note 195, at 781.

¹⁹⁹ Day & Brandt, *supra* note 158, at 31; ROBERT P. SHAY & MILTON W. SHOBER, CONSUMER AWARENESS OF ANNUAL PERCENTAGE RATES OF CHARGE IN CONSUMER INSTALLMENT CREDIT: BEFORE AND AFTER TRUTH IN LENDING BECAME EFFECTIVE 11 (1973); Lewis Mandell, *Consumer Perception of*

Improved knowledge varied significantly with past credit experience and economic status of the purchaser. More importantly, as was the case in nutrition labeling, the critical translation of heightened consumer awareness of the APR and other credit terms into modified credit purchasing behavior remained unclear. Several studies concluded that this heightened consumer awareness had little effect on credit search and credit purchasing behavior.²⁰⁰ One study found that the choice of a dealer or retailer assumed first priority, and the credit/cash decision flowed by default from this primary choice; it also noted that the timing of credit term disclosure usually occurred after the purchase decision had been made.²⁰¹

The Federal Reserve Board partly addressed this problem by requiring early disclosure, at the point of credit shopping

Incurred Interest Rates: An Empirical Test of the Efficacy of the Truth-in-Lending Law, 26 J. FIN. 1143, 1153 (1971) (concluding that consumers were still largely unaware of rate of interest they were paying).

²⁰⁰ Day & Brandt, *supra* note 173, at 30-31 (concluding that improved knowledge of the APR attributable to TILA "had relatively little effect on credit search and usage behavior"); GEORGE S. DAY & WILLIAM K. BRANDT, A STUDY OF CONSUMER CREDIT DECISIONS: IMPLICATIONS FOR PRESENT AND PROSPECTIVE LEGISLATION 96 (1972) ("evidence strongly indicates that disclosure of annual percentage rates (APR) and finance charges did not sharply alter the credit buying behavior of California consumers"); George S. Day, *Assessing the Effects of Information Disclosure Requirements*, J. MKTG., Apr. 1976, at 42, 44 (reviewing studies of disclosure requirements and concluding that there is "much less than full awareness, and even less comprehension of the meaning of the information, while the behavior effects are usually negligible or nonexistent").

²⁰¹ Day & Brandt, *supra* note 173, at 30-31.

rather than at the point of purchase, for certain types of credit, such as credit cards, home equity lines of credit, and adjustable rate mortgages.²⁰²

Like nutrition labeling, TILA disclosure also has varying relevance to different consumer populations. As noted above, past credit experience has a significant affect on knowledge about APR and finance costs. Some commentators argue that TILA disclosure is ineffective for the poor.²⁰³

TILA disclosure also reinforces the fact that information strategies can be expensive. A survey conducted by the American Banking Association estimated the industry wide, direct, out-of-pocket compliance costs at over \$10 billion in 1992.²⁰⁴ These costs are passed on to consumers in the form of higher fees, higher borrowing rates, and lower interest rates on deposits.

Critics of TILA note an even more fundamental flaw. Even though APR disclosure is the centerpiece of TILA, comparison

²⁰² Regulation Z, 12 C.F.R. §§ 226.19, 226.5a, 226.5b (1994). But see John P. Danforth, *Who Pays for the High Cost of Excessive Bank Regulation?*, 12 BANKING POL'Y REP. 1 (1993) (criticizing the up front disclosure requirements as ignoring the different rates and fees at which banks can profitably lend to different customers; concluding that earlier disclosure reduces credit opportunities for higher risk debtors).

²⁰³ William C. Whitford, *The Functions of Disclosure Regulation in Consumer Transactions*, 1973 WIS. L. REV. 400, 420-23; Homer Kripke, *Gesture and Reality in Consumer Credit Reform*, 44 N.Y.U. L. REV. 1 *passim* (1969); Eric Schnapper, *Note, Consumer Legislation and the Poor*, 76 YALE L.J. 745, 749-54 (1967).

²⁰⁴ Danforth, *supra* note 202, 202, at 1-3.

shopping based on the APR is unhelpful in many common credit situations. For instance, dealer APRs in automobile financing do not reflect foregone cash payments from the manufacturer; APRs on open-end home equity lines of credit cannot be compared with closed-end second mortgages because the APRs are calculated differently.²⁰⁵ The true cost of open-end credit on credit cards bears less resemblance to the APR as fixed fees and annual membership charges have increased. In addition, one critic points out that the standard formulation of the APR is fundamentally misleading for mortgage borrowers because they are likely to pay off their loans on something other than the contractual loan repayment schedule.²⁰⁶

E. *Lessons from the NLEA and TILA for Report Card Systems: Acceptance of the working hypothesis that recent experience with consumer-directed technical information dissemination programs in consumer credit and food nutrition labeling supports the conclusions of hypotheses 1-5.*

The analysis of the NLEA and TILA statutory disclosure schemes is important to the report card issue because it illustrates the difficulties of identifying and measuring relevant factors and determining whether disclosure has

²⁰⁵ Regulation Z, 12 C.F.R. §§ 226.14, 226.22 (1993); see Garwood et al., *supra* note 195.

²⁰⁶ Danforth, *supra* note 202, 202, at 2-5.

achieved stated policy goals. First, the specificity of the NLEA and TILA statutes is in stark contrast to the lack of substance in the information disclosure requirements of the major health care reform plans. In nutrition labeling, Congress could identify fat, calorie, fiber, and salt content as important information to the decision to eat well. In TILA, Congress could define the APR and finance charges as (arguably) important elements of an informed credit transaction. Congress can do no such thing for health care quality, as Part II's discussion of the state of the art in quality measurement has shown.

Even once that first step of disclosure is achieved, as it has been with much cost and effort for nutrition information and credit terms, critics argue, and the literature on cognitive biases and information overload suggest, that our understanding of how consumers respond to such disclosure is incomplete at best. Credit disclosures may not necessarily perfect credit markets and nutrition labeling by itself cannot improve our health. In the case of health care quality, Congress and a national quality agency cannot yet take that second step, because we simply do not yet know what kind of data imparts meaningful information on quality care. Once we do, we must still discover whether consumers will make point of insurance decisions that reward plans for meeting important, relevant, quality-based benchmarks before we turn over our quality assurance program to the report

cards.

Conclusion: Acceptance of the Hypothesis that consumer-directed quality information dissemination, in the form of health care report cards, is practically, technically, and theoretically inappropriate as the foundation of quality assurance systems in health care reform; policy recommendations.

Given the cognitive and state of the art limits on health care quality measurement, policymakers should consider several basic points regarding an information disclosure program in health care. First, disclosure alone will not be a quality assurance mechanism. Plans will strive to meet the established benchmarks, but we do not yet have a set of benchmarks that completely represent the delivery of quality care. Consumers may make choices based on disclosed information, but it seems that quality information is not the most persuasive. If that is the case, a competitive market will not solve our quality problems for us. Second, the goals that report cards can realistically achieve, reinforcing a sense of consumer autonomy, facilitating consumer satisfaction, and promoting price shopping, can be fulfilled through a less extensive and less expensive program.

The ultimate lessons for the health care context from case studies of nutrition labeling and truth in lending laws are twofold. First, quality information disclosure in health

care is significantly more complex, and farther beyond our current abilities, than computing the APR or listing the percentage of calories from fat. Second, despite some success at elevating consumer awareness of nutritional content and credit costs, we still have only a vague understanding of how consumers process and act on the information provided.²⁰⁷ Cognitive psychologists have shown that we should be cautious in drawing straightforward cause and effect relationships between disclosure and behavior that will reliably produce the goals of a statutory scheme. Our mental processes produce systematic biases and have demonstrated that information quantity, quality, and presentation affect decision-making.

Clearly, the acceptance of this thesis' hypothesis shows that we have a long academic road to travel in creating a report card that will assure quality. We must recognize two stages in that journey: defining what information is relevant to our goal and understanding how consumers respond to what is disclosed. Experience with the NLEA and TILA demonstrates that the political and administrative process pays close attention to the first step, but social science suggests that we incompletely understand the second and that it receives far less attention from policymakers. In choosing what to disclose, we must begin to explore not only what types of

²⁰⁷ See generally Beales et al., *supra* note 48 (describing the general lag between our acceptance of the goals of disclosing information and our understanding of how consumers respond to what they are given).

information are meaningful to health care quality but also what information is meaningful to consumers.

Policymakers must recognize that health care consumers will selectively over-emphasize, de-emphasize, or ignore different types of information. If report cards are to serve as quality assurance tools, these policymakers must also confirm that typically over-emphasized data are proven quality proxies. They must highlight typically de-emphasized data if that information truly reflects quality care. And they can conceivably reduce the costs of a disclosure program by eliminating ignored data from the report card, or reducing the quantity of disclosed data to focus attention on the proven quality proxies.

We should view with caution the rise of a private report card industry in health care. The direct consequence of the prominence of the report cards in every national health care reform proposal has been a frantic rush amongst numerous private actors to assume the role of report card authority. With millions of dollars in public and private "grading" contracts at stake, the NCQA, JCAHO, managed care plans, and large corporations, to name just a few, have joined a high stakes race to produce the definitive report card. All certainly hope to rationalize quality measurement and management, and for all the financial risks and possible payoffs are staggering.

If from this ferment emerges clear information about what

works and what doesn't on a report card, then so much the better. But during this frenzy to produce the definitive report card, policymakers, quality assurance experts, and consumers must carefully study what it is these systems measure, what relationship these measurements actually have to quality, how consumers process the data, and whether the processed quality data guide consumer choices in ways that reward quality care. That analysis must necessarily precede legislative validation or widespread public acceptance of any report card system as a quality assurance program.

As a quality assurance program, report card systems currently deserve an F. The course of study in quality management proposed by policymakers and adopted by the private sector is at the graduate level, but as students, we are still in elementary school. This is not to say that data gathering and quality monitoring are unreasonable goals; they are at the heart of the preservation of what works in this health care system and the reform of what doesn't. But we do not yet know what to put on a report card, nor do we understand how the cognitive limitations and biases inherent in consumer information processing will shape quality-based decisions.

The report card movement has emphasized quality as a profit engine for managed care companies, insurers, hospitals, and providers. But in truth, the ultimate goal of quality assurance is to improve the health of the nation rather than the corporation, to safeguard the body rather than the balance

sheet. Policymakers must keep that goal squarely in mind, lest they jeopardize the ends of quality assurance under pressure to use it as a financial means.

This thesis suggests several themes for future health care policy regarding quality assurance systems and report cards. First, policymakers must encourage ongoing research into defining the components and outcomes of quality care. In an era of budget cuts and dwindling grant support, the public must demand that outcomes and process research continue. More importantly, quality assurance efforts — report cards and otherwise — must incorporate the results of that research into clinical practice. The PORT projects must be fully funded to their completion. With continued support, clinical practice guidelines can then serve as accessible distillations of accepted research into the outcomes of diagnostic and therapeutic strategies.

The quality definition movement is already well under way; in order to preserve its momentum, policymakers must reward private efforts in its behalf and maintain direct public support through grants. The mechanisms to create incentives in the private sector — a more palatable and often less onerous alternative to public mandates — are numerous and varied. Legislatures could create tax incentives for private managed care companies to engage in quality definition research efforts; regulatory agencies could support favorable bond ratings for hospital networks that engage in outcomes and

process research; state governments could tie increased enrollment of Medicaid patients into managed care plans to requirements that those for-profit companies support or conduct quality definition research.

This thesis proves that report cards cannot currently assure quality, in part because the relevant data has not yet been identified. The research also suggests that report cards, especially as they are currently conceived, may never assure quality, simply because satisficing decisions may marginalize quality-reflective data. Before policymakers condone report card systems, they must require the report card producers themselves to prove that consumers are using the quality data to choose hospitals, plans, and providers. HCFA, AHCPR, state agencies, and private accreditation agencies must support research into report card use, as well as into their creation.

This thesis predicts a vacuum in health care quality assurance. By blindly accepting report cards, both the public and private sectors risk assigning quality assurance to a system that is ill equipped to fulfill that role. The need for active professionally led quality assurance programs that internally evaluate the process and outcomes of care within hospitals, networks, and managed care plans is paramount. Rather than betting the nation's health that satisfaction equals quality, policymakers must encourage the health care industry to enlist its professionals in quality assurance

review. To date, that requirement has taken the form of expanded quality assurance standards for accreditation and qualification for state funds. Until report cards prove themselves capable of quality assurance, the interim solution is to supplement these internal quality assurance programs with a requirement that they include process and outcomes measures. The integration of clinical practice guidelines into the quality assurance matrix would insure that national standards filter down to the individual departments and providers that actually deliver the care. By expanding the role of internal oversight to include quality promotion as well as identification of substandard care, providers can harness recent quality research to directly benefit patients.

Policymakers should also reconsider the proper role of the government in the new report card industry. States agencies and other government actors should evaluate report card systems rather than produce them. The unexpected benefit of the rise of a private report card industry is that the government can step back and grade the report cards, rather than spend hundreds of millions of dollars in administering each test case. Pennsylvania, New York, Florida and other states should downsize and reorient their report card agencies to evaluate the report card systems emerging in the private sector. By investing limited resources in critical review, rather than in duplication of private sector efforts, the government can answer fundamental questions about report card

efficacy without prematurely investing itself in their success.

Rather than mandating an expensive national program to collect and distribute data or blindly endorsing private sector report card systems as adequate quality assurance without first understanding what that disclosed information means or how it might be used, policymakers should initially invest a fraction of those resources into research efforts and critical review of the private report card systems currently flooding the new quality measurement market. By allowing employer networks and providers to experiment with different collection and disclosure formats in the course of these projects, we can learn what it is we want to measure, what those measurements tell us about quality of care, how, if at all, consumers and purchasers tend to react, and whether consumers' satisficing choices serve as a quality assurance mechanism. Some form of active quality assurance system incorporating well-designed outcomes-tracking – once we have identified the relevant measurable data – should independently monitor quality. By empowering federal or state agencies to monitor rather than produce the report card experiments, we can protect patients, providers, and the public treasury from the collateral damage that this thesis has shown to be the likely result of report card-based quality assurance.²⁰⁸

²⁰⁸ The deputy administrator of the Health Care Financing Administration recently suggested that the government should establish a legal and regulatory structure

Most importantly, in order to preserve quality health care, policymakers must refrain from anointing the report cards as the foundation of quality assurance until there is evidence that they actually work in practice. The private sector and consumers should likewise recognize that report card systems are not proven quality assurance tools. Given the recent proliferation of report card systems, the data to answer these doubts will become available. We must simply resolve to study it.

Treating an ailing health care system requires a cautious therapeutic approach. We should not yet expect too much from, nor spend too much on, information disclosure in health care. Strategic initial investment efforts to refine quality measurement, coupled with critical review by federal and state agencies of the report card projects themselves, *must* be followed by a comprehensive evaluation of the interface

similar to that provided by the Securities and Exchange Commission to oversee report card efforts. *Consumers Should Look to Government for Information on Quality Measures*, quoting Helen Smits, 3 HCPR 3 d20 (January 16, 1995). At a minimum, HCFA has suggested filtering the report card data that plans produce through existing Peer Review Organizations created by Medicare legislation; the PROs, in turn, would present comparisons of the performance back to Medicare HMOs. *HCFA Should Begin Pilot to Increase HMOs' Use of Patient Surveys* 2 HCPR 35 d34 (August 29, 1994).

between consumers and disclosed information. This is the diagnostic test we must perform before we prescribe the market medicine of report cards as the treatment of choice in health care quality assurance.

Appendix A

Sample Kaiser Permanente Report Card

Source: Kaiser Permanente Northern California Region, 1993
Quality Report Card

Measure	Performance	Relative Performance						
Mammography Screening Rate	 71.2% <small>BENCHMARK</small> 	No comparable benchmark						
<i>Breast Cancer Stage at Diagnosis:</i> ^a	<table> <tr> <td>Local</td> <td>  61.9% <small>BENCHMARK</small>  </td> </tr> <tr> <td>Regional</td> <td>  30.7% <small>BENCHMARK</small>  </td> </tr> <tr> <td>Distant</td> <td>  4.0% <small>BENCHMARK</small>  </td> </tr> </table>	Local	 61.9% <small>BENCHMARK</small> 	Regional	 30.7% <small>BENCHMARK</small> 	Distant	 4.0% <small>BENCHMARK</small> 	 Favorable distribution across stages
Local	 61.9% <small>BENCHMARK</small> 							
Regional	 30.7% <small>BENCHMARK</small> 							
Distant	 4.0% <small>BENCHMARK</small> 							
<i>Breast Cancer 5-Year Survival Rate:</i> ^a	<table> <tr> <td>Local</td> <td>  96.1% <small>BENCHMARK</small>  </td> </tr> <tr> <td>Regional</td> <td>  79.6% <small>BENCHMARK</small>  </td> </tr> <tr> <td>Distant</td> <td>  20.8% <small>BENCHMARK</small>  </td> </tr> </table>	Local	 96.1% <small>BENCHMARK</small> 	Regional	 79.6% <small>BENCHMARK</small> 	Distant	 20.8% <small>BENCHMARK</small> 	 4% favorable  11% favorable Not statistically different
Local	 96.1% <small>BENCHMARK</small> 							
Regional	 79.6% <small>BENCHMARK</small> 							
Distant	 20.8% <small>BENCHMARK</small> 							
Breast Cancer Mortality Rate (per 100,000 women)	 29.8 <small>BENCHMARK</small> 	Not statistically different						

U.S. Healthcare 1992 Quality Report Card

HMO of Pennsylvania

National Committee for Quality Assurance
Health Plan Employer Data and Information Set (HEDIS) 2.0

<i>Quality of Care Measure</i>	<i>Description</i>	<i>HMO-PA</i>
PREVENTIVE SERVICES		
1. Childhood Immunization	children age two years immunized according to the schedule below:	76.7
Mumps - Measles - Rubella (MMR)	children receiving an MMR between ages one and two years	91.0
Diphtheria - Pertussis - Tetanus (DPT)	children receiving four DPTs by age two years	90.5
Oral Polio Vaccine (OPV)	children receiving three OPVs by age two years	92.1
Hemophilus Influenzae (Hib)	children receiving one Hib between ages one and two years	84.0
2. Cholesterol Screening	adults 40 - 64 with a cholesterol measured during previous 5 years	79.9
3. Mammography Screening	women 50 - 64 who received a mammogram during previous 2 years	74.2
4. Cervical Cancer Screening	women 18 - 64 recorded as having a pap test during previous 3 years	71.0
PREGNATAL CARE		
5. Low Birthweight	live births: 1. less than 1500 gm 2. less than 2500 gm	1.0 6.3
6. Prenatal Care in First Trimester	women receiving prenatal care in the first trimester	84.5
ACUTE and CHRONIC DISEASE		
7. Asthma Inpatient Admission Rate	members aged 1 to 39 with 1 or more admissions for asthma	0.148
8. Diabetic Retinal Exam	diabetics aged 30 to 64 who received an annual eye exam	32.9
MENTAL HEALTH		
9. Ambulatory Follow-up after Hospitalization	ambulatory follow-up of patients with major affective disorder	83.1
MEMBER ACCESS and SATISFACTION		
10. Access	members who visited a plan health care provider (3 years): 1. aged 22 - 39 2. aged 40 - 64	93.7 94.8
11. Satisfaction	response of good or higher to survey question concerning "overall medical care"	93.3

All statistics are expressed as percentages.

Copyright 1993 U.S. Quality Algorithms

Source: U.S. Quality Algorithms (a subsidiary of U.S. Healthcare Corporation), 1993.

Appendix B

Sample Health Status Questionnaire

Source: Health Outcomes Institute Review (November 1993)

Attachment 1
Items in the Health Status Questionnaire

Items	Response Categories
1. In general, would you say your health is:	excellent, very good, good, fair, poor
2. Compared to one year ago, how would you rate your health in general now?	<ul style="list-style-type: none"> - <i>much better now than one year ago</i> - <i>somewhat better now than one year ago</i> - <i>about the same</i> - <i>somewhat worse now than one year ago</i> - <i>much worse now than one year ago</i>
The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?	<ul style="list-style-type: none"> - yes, <i>limited a lot</i> - yes, <i>limited a little</i> - no, <i>not limited at all</i>
3. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports	
4. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	
5. Lifting or carrying groceries	
6. Climbing several flights of stairs	
7. Climbing one flight of stairs	
8. Bending, kneeling, or stooping	
9. Walking more than a mile	
10. Walking several blocks	
11. Walking one block	
12. Bathing or dressing yourself	
During the past 4 weeks, have you had any of the following problems with your work or other daily activities as a result of your physical health?	
13. Cut down the amount of time you spent on work or other activities	<ul style="list-style-type: none"> - yes - no
14. Accomplished less than you would like	
15. Were limited in the kind of work or other activities	
16. Had difficulty performing the work or other activities (for example, it took extra effort)	
During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?	<ul style="list-style-type: none"> - yes - no
17. Cut down the amount of time you spent on work or other activities	
18. Accomplished less than you would like	
19. Didn't do work or other activities as carefully as usual	
20. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?	<ul style="list-style-type: none"> - <i>not at all</i> - <i>slightly</i> - <i>moderately</i> - <i>quite a bit</i> - <i>extremely</i>

(continued)

21. How much bodily pain have you had during the past 4 weeks?	- none - very mild - mild	- moderate - severe - very severe
22. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?	- not at all - a little bit - moderately	- quite a bit - extremely
These questions are about how you feel and how things have been with you during the past 4 weeks . For each question, please indicate the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks...		- all of the time - most of the time - a good bit of the time - some of the time - a little of the time - none of the time
23. Did you feel full of pep? 24. Have you been a very nervous person? 25. Have you felt so down in the dumps nothing could cheer you up? 26. Have you felt calm and peaceful? 27. Did you have a lot of energy? 28. Have you felt downhearted and blue? 29. Did you feel worn out? 30. Have you been a happy person? 31. Did you feel tired?		
32. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, close relatives, etc.)?	- all of the time - most of the time - some of the time	- a little of the time - none of the time
How true or false is each of the following statements for you. 33. I seem to get sick a little easier than other people 34. I am as healthy as anybody I know 35. I expect my health to get worse 36. My health is excellent	-definitely true - mostly true	- mostly false - definitely false - don't know
37. In the past year, have you had 2 weeks or more during which you felt sad, blue, or depressed; or when you lost all interest or pleasure in things that you usually cared about or enjoyed?		
38. Have you had 2 years or more in your life when you felt depressed or sad most days, even if you felt okay sometimes?		- yes - no
39. Have you felt depressed or sad much of the time in the past year?		

Questions 1 through 36 adapted from the RAND 36-Item Health Status Survey 1.0

Note: This is a conceptual outline only. It is not a usable form of the instrument.

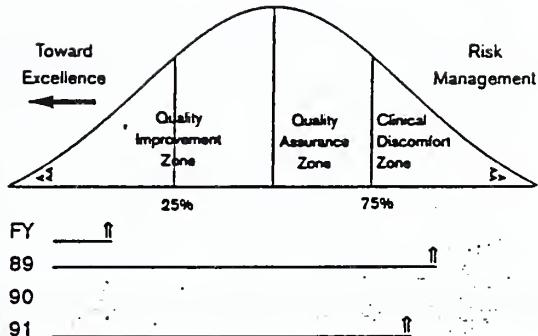
Appendix C

Sample "Toward Excellence in Care" Quality Report

Source: Journal on Quality Improvement, Vol. 19, No. 11 (1993)

Technical Complications

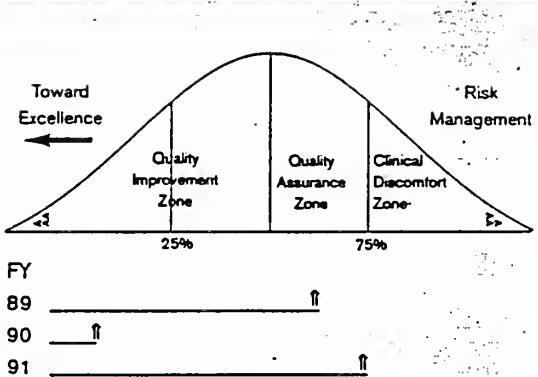
Time Frame	State 25th Percentile	State Mean	Hospital Percent Complication
89	3.6	5.0	7.9
90	5.0	6.5	4.4
91	6.1	6.6	11.4



Your Hospital's Position for Fiscal Years 1989, 1990, and 1991

Total Complications

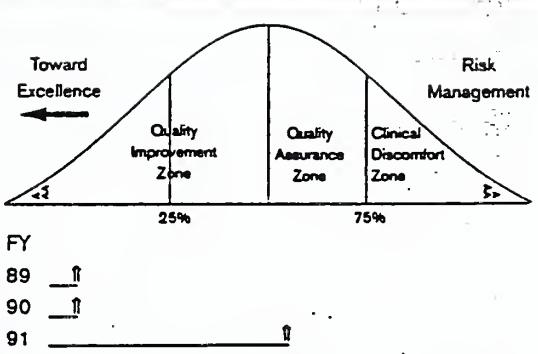
Time Frame	State 25th Percentile	State Mean	Hospital Percent Complication
89	10.3	11.7	12.4
90	12.9	15.3	11.0
91	10.3	12.6	17.0



Your Hospital's Position for Fiscal Years 1989, 1990, and 1991

Long Postoperative Lengths-of-stay

Time Frame	State 25th Percentile	State Mean	Hospital Percent Long Postops
89	10.9	16.2	8.4
90	16.6	22.4	10.4
91	12.2	154.8	15.9



Your Hospital's Position for Fiscal Years 1989, 1990, and 1991

Figure 1. An example of the summary report accompanying the cholecystectomy report series for 10/01/88 through 10/01/91. This report provides the hospital with overall summary statistics for the three primary indicators in the project: technical complications, total complications, and long postoperative lengths-of-stay.

Appendix D

Hospital Effectiveness Report: DRG 127

and excerpt from

A Consumer's Guide to Coronary Artery Bypass Graft Surgery

Source: Pennsylvania Health Care Cost Containment Council

DRG 127
Heart Failure and Shock

Hospital	Comments	Number of Patients	Average Admission Severity Score	Age 65 and Over (%)	Deaths			Medically Unstable during first week (Major Morbidity)			Average Stay (Days)	Average Charge (\$)
					Actual Number	Expected Number	Statistical * Rating	Actual Number	Expected Number	Statistical * Rating		
Stein Medical Center		427	2.3	70.7	22	26.40		28	34.62		8.4	16,025
Hill Hospital		318	2.4	86.8	11	24.55	+	21	28.67		7.0	9,314
Hospital		149	2.4	60.4	5	9.37		11	13.68		8.2	11,743
Hospital of Philadelphia		400	2.4	80.3	20	26.80		36	35.20		8.9	19,949
square Hospital		74	2.1	75.7	5	4.16		3	5.37		10.7	16,606
rown Hospital & Medical Center		317	2.2	72.9	15	19.56		18	25.31		8.1	11,856
Hospital		219	2.4	60.3	15	14.61		15	20.28		7.0	18,655
enn University Hospital		217	2.1	63.6	10	10.24		11	15.69		6.9	13,333
of the University of PA		326	2.2	55.2	12	18.00		21	25.46		6.3	17,925
Phil Col of Osteo Med		251	2.3	64.1	6	12.84	+	15	19.14		7.2	11,940
CM/Parkview		171	2.3	80.1	15	12.06		7	14.43	+	8.8	12,901
Keedy Memorial Hospital		119	2.4	65.5	5	7.77		6	10.56		10.3	14,076
Hospital	✓	351	2.5	90.9	19	31.51	+	48	34.18	—	8.6	11,844
Park Hospital		102	2.6	83.3	11	9.14		8	10.24		8.6	15,112
College Hospitals / Main		303	2.4	60.7	8	17.75	+	10	26.45	+	6.1	13,787
Catholic Medical Ctr/Miser		339	2.2	56.3	11	18.08		10	26.82	+	7.0	12,293
Hospital		363	2.3	79.9	16	24.55		34	30.82		10.1	17,350
Hospital		457	2.2	90.8	31	30.96		32	35.10		8.4	11,686
Medical Center		178	2.1	70.8	9	9.39		1	12.42	+	8.2	13,700
tern Hospital		282	2.3	81.6	13	18.37		18	23.14		9.3	14,384

Statistical Rating:

fewer deaths or fewer patients who were medically unstable than hospitals in Comparative Database
more deaths or more patients who were medically unstable than hospitals in Comparative Database
single occurrence of a death or major morbidity in a DRG where death or major morbidity is very rare
actual number of deaths or actual number of patients who were medically unstable are not statistically significantly different from hospitals in Comparative Database

1-14

DRG 127
Continued

Hospital	Comments	Number of Patients	* Average Admission Severity Score	Age 65 and Over (%)	Deaths			Medically Unstable during first week (Major Morbidity)			Average Stay (Days)	Average Charge (\$)
					Actual Number	Expected Number	Statistical Rating	Actual Number	Expected Number	Statistical Rating		
Pennsylvania Hospital		241	2.1	73.4	12	12.68		13	17.26		7.3	12,684
Presbyterian Medical Center of Phil		407	2.1	64.9	23	21.23		29	29.03		7.5	10,947
Roxborough Memorial Hospital		257	2.2	89.9	12	16.59		15	20.33		7.3	9,162
Saint Agnes Medical Center		410	2.2	78.8	24	26.27		27	33.24		9.2	13,585
Temple University Hospital		294	2.3	48.3	8	14.65		24	22.99		7.5	16,394
Thomas Jefferson University Hosp	✓	259	2.5	72.6	13	19.75		38	24.55	—	9.0	20,016
REGION 9		7,231	2.2	72.8							8.1	14,068

***Average Admission Severity Score:**

The rating which measures how sick a patient is at the beginning of their hospital stay on a scale of 0 to 4. 0 is not very sick and 4 is very sick.

Refer to "How to Read" chart on page

HE9-91

Pennsylvania Hospitals Performing Cardiac Surgery [§]

2-Year Comparison of Patients Treated, Statistical Rating for Number of Patients Who Died and Average Charge

Hospitals listed alphabetically by geographic area	1990			1991		
	Total Patients	Statistical Rating	Average Charge	Total Patients	Statistical Rating	Average Charge
WESTERN PENNSYLVANIA AREA						
Allegheny General Hospital	1,010	+	\$46,704	1,010	+	\$49,449
Hamot Medical Center	444	Δ	\$34,769	498	Δ	\$42,201
Mercy Hospital of Pittsburgh	682	Δ	\$39,002	725	Δ	\$41,340
Presbyterian University Hospital /Pittsburgh	171	Δ	\$70,089	268	Δ	\$83,219
Saint Francis Central Hospital	335	Δ	\$46,544	294	Δ	\$46,774
Saint Francis Medical Center	463	-	\$48,808	463	Δ	\$50,185
Saint Vincent Health Center	304	Δ	\$45,667	365	Δ	\$57,933
Shadyside Hospital	714	Δ	\$56,015	915	+	\$62,842
Western Pennsylvania Hospital	579	Δ	\$57,569	781	Δ	\$58,467
CENTRAL & NORTHEASTERN PENNSYLVANIA AREA						
Altoona Hospital	332	+	\$27,333	403	Δ	\$31,054
Geisinger Medical Center /Danville	323	Δ	\$30,202	393	Δ	\$34,294
Harrisburg Hospital	467	-	\$39,587	458	Δ	\$47,833
Lancaster General Hospital	673	Δ	\$24,307	680	Δ	\$25,219
Mercy Hospital of Scranton	415	-	\$23,885	377	Δ	\$28,293
Penn State University Hospital (Hershey)	201	Δ	\$33,282	195	Δ	\$36,753
Polyclinic Medical Center	330	Δ	\$39,314	401	Δ	\$43,403
Robert Packer Hospital	386	Δ	\$21,246	348	Δ	\$23,523
Wilkes-Barre General Hospital /WVHCS	214	Δ	\$29,746	363	+	\$28,700
York Hospital	335	-	\$26,334	339	Δ	\$30,113
SOUTHEASTERN PENNSYLVANIA AREA						
Albert Einstein Medical Center	581	Δ	\$61,971	615	Δ	\$71,051
Bryn Mawr Hospital	300	Δ	\$49,309	323	Δ	\$58,329
Episcopal Hospital	285	Δ	\$44,081	269	Δ	\$46,110
Graduate Hospital	287	-	\$83,851	283	Δ	\$89,236
Hahnemann University Hospital	847	+	\$65,825	885	Δ	\$73,500
Hospital of the University of Pennsylvania	354	-	\$76,928	348	Δ	\$79,544
Lankenau Hospital	584	Δ	\$48,261	594	Δ	\$52,262
Lehigh Valley Hospital	920	-	\$39,186	903	Δ	\$44,619
Medical College Hospitals /Main Clinical Campus	174	Δ	\$56,530	182	Δ	\$61,951
Pennsylvania Hospital	90	Δ	\$51,164	157	Δ	\$58,785
Presbyterian Medical Center of Philadelphia	478	Δ	\$42,408	562	Δ	\$45,850
Reading Hospital and Medical Center	526	+	\$21,063	617	Δ	\$23,205
Saint Luke's Hospital of Bethlehem	337	Δ	\$33,245	427	Δ	\$34,415
Temple University Hospital	258	Δ	\$65,303	253	Δ	\$72,171
Thomas Jefferson University Hospital	292	Δ	\$52,464	329	Δ	\$61,974
PENNSYLVANIA STATEWIDE						
	14,895		\$44,649	16,266		\$49,104

[§] Only hospitals reported for both years are included in this table.

**Southeastern Pennsylvania Area Hospitals
Physician Practice Groups and Cardiac Surgeons
for Coronary Artery Bypass Graft Surgery**

Treatment Effectiveness Measure

Hospital Physician Practice Group and Surgeons	Total Patients	Patients Who Died		
		Actual Number *	Expected Range	Statistical Rating
GRADUATE HOSPITAL	283	11	3.4 - 13.7	Δ
Hendren, William G., MD *	63	1	0.0 - 4.2	Δ
MacVaugh, Horace, III, MD	21		less than 30 patients treated	
Plzak / Goldenberg / Woody	198	7	1.9 - 10.4	Δ
Goldenberg, Marc R.	52	3	0.0 - 3.3	Δ
Plzak, Louis F., Jr.	75	1	0.5 - 6.1	Δ
Woody, Daniel J.	71	3	0.0 - 4.0	Δ
Silverman, Edward M., MD	1		less than 30 patients treated	
HAHNEMANN UNIVERSITY HOSPITAL	885	41	28.6 - 49.6	Δ
Cardiac & Thoracic Surgeons, PC	598	31	18.8 - 36.1	Δ
Brockman, Stanley K.	126	9	0.9 - 8.6	—
Gheissari, Ali	37	3	1.6 - 6.1	Δ
Grunewald, Karl E.	142	5	0.8 - 8.8	Δ
Kuretu, M. L. Ray	178	10	4.5 - 14.3	Δ
Strong, Michael D.	115	4	0.8 - 8.2	Δ
Inder P. Goel, MD, PC	287	10	5.7 - 17.6	Δ
Goel, Inder P.	179	6	2.1 - 11.6	Δ
Maquilan, Jose March	108	4	1.1 - 8.5	Δ
HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA	348	22	10.0 - 23.4	Δ
DiSesa, Verdi, J., MD	150	6	1.0 - 8.9	Δ
Hargrove, Walter C., III, MD	142	2	10.0 - 14.1	Δ
John Rhea Barton Surgical Associates	139	13	4.8 - 14.1	Δ
Edmunds, L. Henry, Jr.	125	12	3.9 - 12.8	Δ
Ratcliffe, Mark B.	14		less than 30 patients treated	
Tyson, George S., MD	17		less than 30 patients treated	

* This surgeon has privileges at another hospital and some of his/her patients are listed under that hospital. Refer to the physician listings to identify these hospitals. Check the Table of Contents for physician listing page numbers.

Appendix E

*Sample Coronary Artery Bypass Graft
Report Card*

Source: Pennsylvania Health Care Cost Containment Council (1991 data)

"HOW TO READ THE CHARTS"

This chart is presented as a guide to help readers understand information in the charts.
Please note that these are not actual data, but used for reference purposes only.

Hospitals Performing Coronary Artery Bypass Graft Surgery

Treatment Effectiveness & Average Charge

1 Hospital	2 Total Patients	Patients Who Died			6 Average Charge
		3 Actual Number	4 Expected Range	5 Statistical Rating	
7 Hospitals With Fewer Number of Deaths Than Expected					
Hospital A	150	8	8.4 - 12.2	+	\$59,438
8 Hospitals With Similar Number of Deaths as Expected					
Hospital G	276	9	6.2 - 9.2	Δ	\$39,946
9 Hospitals With Greater Number of Deaths Than Expected					
Hospital M	508	31	18.6 - 28.1	-	\$44,789

1. Name of hospital where surgery was performed.
2. Actual number of patients treated at the hospital in 1991 for coronary bypass surgery.
3. Actual number of patients admitted to the hospital for coronary bypass surgery, who died.
4. The expected range of patient deaths at the hospital, taking into account the age, sex, and medical condition of that hospital's patients.
5. Compares the actual number of patient deaths to the statistically expected number of patient deaths for that hospital:
 - + hospital had significantly fewer deaths than expected;
 - hospital had significantly more deaths than expected;
6. The average amount billed for the stay in the hospital for coronary bypass surgery.
7. Hospitals with significantly fewer deaths than expected (plus symbol) are grouped together in this table.
8. Hospitals with similar numbers of deaths as expected (triangle symbol) are grouped together.
9. Hospitals with greater number of deaths than expected (minus symbol) are grouped together.

Hospitals Performing Coronary Artery Bypass Graft Surgery
 Treatment Effectiveness & Average Charge

Hospital	Total Patients	Patients Who Died			Average Charge
		Actual Number	Expected Range	Statistical Rating	
<i>Hospitals with Fewer Number of Deaths than Expected</i>					
Allegheny General Hospital	1,010	30	31.4 - 52.5	+	\$49,449
Shadyside Hospital	915	24	24.2 - 44.3	+	\$62,842
Wilkes-Barre General Hospital/WVHCS	363	5	5.1 - 6.9	+	\$28,700
<i>Hospitals with Similar Number of Deaths as Expected</i>					
Albert Einstein Medical Center	615	23	15.4 - 32.4	Δ	\$71,051
Altoona Hospital	403	4	2.2 - 12.7	Δ	\$31,054
Bryn Mawr Hospital	323	12	4.4 - 15.3	Δ	\$58,329
Conemaugh Valley Memorial Hospital	243	8	2.9 - 13.1	Δ	\$46,569
Episcopal Hospital	269	9	3.3 - 14.1	Δ	\$46,110
Geisinger Medical Center /Danville	393	15	7.3 - 20.3	Δ	\$34,294
Graduate Hospital	283	11	3.4 - 13.7	Δ	\$89,236
Hahnemann University Hospital	885	41	28.6 - 49.6	Δ	\$73,500
Hamot Medical Center	498	24	11.7 - 26.1	Δ	\$42,201
Harrisburg Hospital	458	22	8.6 - 22.1	Δ	\$47,833
Hospital of the University of Pennsylvania	348	22	10.0 - 23.4	Δ	\$79,544
Lancaster General Hospital	680	12	11.0 - 26.8	Δ	\$25,219
Lankenau Hospital	594	19	9.6 - 24.2	Δ	\$52,262
Lehigh Valley Hospital	903	33	26.3 - 46.4	Δ	\$44,619
Medical College Hospital /Main Clinical Campus	182	8	1.1 - 9.3	Δ	\$61,951
Mercy Hospital of Pittsburgh	725	17	15.8 - 33.7	Δ	\$41,340
Mercy Hospital of Scranton	377	15	7.1 - 19.6	Δ	\$28,293
Penn State University Hospital (Hershey)	195	8	3.3 - 12.5	Δ	\$36,753
Pennsylvania Hospital	157	16	6.4 - 17.1	Δ	\$58,785
Polyclinic Medical Center	401	14	4.0 - 15.9	Δ	\$43,403
Presbyterian Medical Center of Philadelphia	562	22	11.5 - 26.7	Δ	\$45,850
Presbyterian University Hospital /Pittsburgh	268	12	4.0 - 14.8	Δ	\$83,219
Reading Hospital and Medical Center	617	17	8.8 - 23.4	Δ	\$23,205
Robert Packer Hospital	348	8	4.8 - 16.1	Δ	\$23,523
Saint Francis Central Hospital	294	7	4.1 - 14.5	Δ	\$46,774
Saint Francis Medical Center	463	17	10.2 - 23.9	Δ	\$50,185
Saint Luke's Hospital of Bethlehem	427	18	7.7 - 21.5	Δ	\$34,415
Saint Vincent Health Center	365	12	7.3 - 19.6	Δ	\$57,933
Temple University Hospital	253	10	3.3 - 14.0	Δ	\$72,171
Thomas Jefferson University Hospital	329	11	4.9 - 16.3	Δ	\$61,974
Western Pennsylvania Hospital	781	27	16.6 - 34.4	Δ	\$58,467
York Hospital	339	15	4.6 - 15.5	Δ	\$30,113
Statewide Total	16,266	568			\$49,104

Hospitals and Physicians may have commented on this report. Copies are available upon request.
 Source: Pennsylvania Health Care Cost Containment Council, 1991 data.

Appendix F

Sample Nutrition Labels

Source: 21 C.F.R. Chapter I (April 1993) .

Nutrition Facts

Serving Size 1 cup (228g)

Servings Per Container 2

Amount Per Serving

Calories 260 Calories from Fat 120

% Daily Value*

Total Fat 13g 20%

Saturated Fat 5g 25%

Cholesterol 30mg 10%

Sodium 660mg 28%

Total Carbohydrate 31g 10%

Dietary Fiber 0g 0%

Sugars 5g

Protein 5g

Vitamin A 4% • Vitamin C 2%

Calcium 15% • Iron 4%

• Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

Nutrition Facts

Serving Size 1/12 cake (80g)

Servings Per Container 12

Amount Per Serving	Mix	Baked
Calories	190	280
Calories from Fat	45	140
% Daily Value**		
Total Fat 5g*	8%	24%
Saturated Fat 2g	10%	13%
Cholesterol 0mg	0%	23%
Sodium 300mg	13%	13%
Total		
Carbohydrate 34g	11%	11%
Dietary Fiber 0g	0%	0%
Sugars 18g		
Protein 2g		
Vitamin A	0%	0%
Vitamin C	0%	0%
Calcium	6%	8%
Iron	2%	4%

* Amount in Mix

** Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

Appendix G

Model Credit Term Disclosure Forms

Source: 12 C.F.R. Chapter II, Appendices G-H (January 1993)

G-10(B) - Applications and Solicitations Model Form (Credit Cards)

Annual percentage rate for purchases	Variable rate information	Grace period for repayment of the balance for purchases	Method of computing the balance for purchases	Annual fees	Minimum finance charge	Transaction fee for purchases
___ %	Your annual percentage rate may vary. The rate is determined by (explanation). [_____] days [Until _____] [Not less than ____ days] [Between ____ and ____ days] [____ days on average] [None]	[____ days] [Until ____] [Not less than ____ days] [Between ____ and ____ days] [____ days on average] [None]	[Annual fee: \$ ____ per year] [Membership fee: \$ ____ per year] [(type of fee): \$ ____ per year] [(type of fee): \$ ____]	\$ ____	\$ ____	\$ ____ ____ % of ____

Transaction fee for cash advances: [\$ ____] [____ % of ____]

Late payment fee: [\$ ____] [____ % of ____]

Over-the-credit-limit fee: \$ ____

G-10(C) - Applications and Solicitations Model Form (Charge Cards)

Annual fees	Transaction fee for purchases	Transaction fee for cash advances, and fees for paying late or exceeding the credit limit
[Annual fee: \$ ____ per year] [Membership fee: \$ ____ per year] [(type of fee): \$ ____ per year] [(type of fee): \$ ____]	[\$ ____] [____ % of ____]	Transaction fee for cash advances: [\$ ____] [____ % of ____] Late payment fee: [\$ ____] [____ % of ____] Over-the-credit-limit fee: \$ ____

All charges made on this charge card are due and payable when you receive your periodic statement.

**IMPORTANT TERMS
of our
HOME EQUITY LINE OF CREDIT**

This disclosure contains important information about our Home Equity Line of Credit. You should read it carefully and keep a copy for your records.

Availability of Terms: To obtain the terms described below, you must submit your application before January 1, 1980.

If terms change (other than the annual percentage rate) and you decide, as a result, not to enter into an agreement with us, you are entitled to a refund of any fees that you have paid to us or anyone else in connection with your application.

Security Interest: We will take a mortgage on your home. You could lose your home if you do not meet the obligations in your agreement with us.

Possible Actions: Under certain circumstances, we can (1) terminate your line, require you to pay us the entire outstanding balance in one payment, and charge you certain fees; (2) refuse to make additional extensions of credit; and (3) reduce your credit limit.

If you ask, we will give you more specific information concerning when we can take these actions.

Minimum Payment Requirements: You can obtain advances of credit for 10 years (the "draw period"). During the draw period, payments will be due monthly. Your minimum monthly payment will equal the greater of \$100 or 1/360th of the outstanding balance plus the finance charges that have accrued on the outstanding balance.

After the draw period ends, you will no longer be able to obtain credit advances and must pay the outstanding balance over 5 years (the "repayment period"). During the repayment period, payments will be due monthly. Your minimum monthly payment will equal 1/60th of the balance that was outstanding at the end of the draw period plus the finance charges that have accrued on the remaining balance.

Minimum Payment Example: If you made only the minimum monthly payments and took no other credit advances, it would take 15 years to pay off a credit advance of \$10,000 at an ANNUAL PERCENTAGE RATE of 12%. During that period, you would make 120

monthly payments varying between \$127.78 and \$100.00 followed by 60 monthly payments varying between \$187.06 and \$118.08.

Fees and Charges: To open and maintain a line of credit, you must pay the following fees to us:

- Application fee: \$150 (due at application)
- Points: 1% of credit limit (due when account opened)
- Annual maintenance fee: \$75 (due each year)

You also must pay certain fees to third parties to open a line. These fees generally total between \$500 and \$900. If you ask, we will give you an itemization of the fees you will have to pay to third parties.

Minimum Draw and Balance Requirements: The minimum credit advance you can receive is \$500. You must maintain an outstanding balance of at least \$100.

Tax Deductibility: You should consult a tax advisor regarding the deductibility of interest and charges for the line.

Variable-Rate Information: The line has a variable-rate feature, and the annual percentage rate (corresponding to the periodic rate) and the minimum payment can change as a result.

The annual percentage rate includes only interest and not other costs.

The annual percentage rate is based on the value of an index. The index is the monthly average prime rate charged by banks and is published in the *Federal Reserve Bulletin*. To determine the annual percentage rate that will apply to your line, we add a margin to the value of the index.

Ask us for the current index value, margin and annual percentage rate. After you open a credit line, rate information will be provided on periodic statements that we will send you.

Rate Changes: The annual percentage rate can change each month. The maximum ANNUAL PERCENTAGE RATE that can apply is 18%. Except for this 18% "cap," there is no limit on the amount by which the rate can change during any one-year period.

Maximum Rate and Payment Examples: If you had an outstanding balance of \$10,000 during the draw period, the minimum monthly payment at the maximum ANNUAL PERCENTAGE RATE of 18% would be \$177.78. This annual percentage rate could be reached during the first month of the draw period.

If you had an outstanding balance of \$10,000 at the beginning of the repayment period, the minimum monthly payment at the maximum ANNUAL PERCENTAGE RATE of 18% would be \$316.67. This annual percentage rate could be reached during the first month of the repayment period.

Historical Example: The following table shows how the annual percentage rate and the minimum monthly payment for a single \$10,000 credit advance would have changed based on changes in the index over the past 15 years. Index values are from September of each year. While only one payment amount per year is shown, payments would have varied during each year.

The table assumes that no additional credit advances were taken, that only the minimum payments were made each month, and that the rate remained constant during each year. It does not necessarily indicate how the index or payments will change in the future.

Year	Index	Margin *	ANNUAL PERCENTAGE RATE	Minimum Monthly Payment
	(%)	(%)	(%)	(\\$)
1974	12.00	2	14.00	144.44
1975	7.88	2	9.88	106.50
1976	7.00	2	9.00	100.00
1977	7.13	2	9.13	100.00
1978	9.41	2	11.41	105.47
1979	12.90	2	14.90	126.16
1980	12.23	2	14.23	117.53
1981	20.08	2	18.00 **	138.07
1982	13.50	2	15.50	117.89
1983	11.00	2	13.00	100.00
1984	12.97	2	14.97	123.81
1985	9.50	2	11.50	170.18
1986	7.50	2	9.50	149.78
1987	8.70	2	10.70	141.50
1988	10.00	2	12.00	130.55

* This is a margin we have used recently.

** This rate reflects the 18% rate cap.

H-1—Credit Sale Model Form

ANNUAL PERCENTAGE RATE The cost of your credit as a yearly rate. %	FINANCE CHARGE The dollar amount the credit will cost you. \$	Amount Financed The amount of credit provided to you or on your behalf. \$	Total of Payments The amount you will have paid after you have made all payments as scheduled. \$	Total Sale Price <small>that the total cost of your purchase on credit, including your down-payment of</small> \$
---	--	---	--	---

You have the right to receive at this time an itemization of the Amount Financed.

I want an itemization. I do not want an itemization.

Your payment schedule will be:

Number of Payments	Amount of Payments	When Payments Are Due

Insurance
Credit life insurance and credit disability insurance are not required to obtain credit, and will not be provided unless you sign and agree to pay the additional cost.

Type	Premium	Signature
Credit Life		I want credit life insurance. _____ Signature _____
Credit Disability		I want credit disability insurance. _____ Signature _____
Credit Life and Disability		I want credit life and disability insurance. _____ Signature _____

You may obtain property insurance from anyone you want that is acceptable to lender(s). If you get the insurance from lender(s), you will pay \$ _____.

Security: You are giving a security interest in:

the goods or property being purchased.
 (brief description of other property).

Filing fees \$ _____ Non-filing insurance \$ _____

Late Charge: If a payment is late, you will be charged \$ _____ / _____ % of the payment.

Prepayment: If you pay off early, you

may will not have to pay a penalty.
 may will not be entitled to a refund of part of the finance charge.

See your contract documents for any additional information about nonpayment, default, any required repayment in full before the scheduled date, and prepayment refunds and penalties.

e means an estimate

Federal Reserve System

10-Credit Sale Sample

Pt. 226, App. H

Big Wheel Auto					Alice Green
ANNUAL PERCENTAGE RATE The cost of your credit as a yearly rate.	FINANCE CHARGE The dollar amount the credit will cost you.	Amount Financed The amount of credit provided to you or on your behalf.	Total of Payments The amount you will have paid after you have made all payments as scheduled.	Total Sale Price The total cost of your purchase on credit, including your downpayment of	\$ 1500 -
14.84%	\$ 1496.80	\$ 6107.50	\$ 7604.30	\$ 9129.30	

You have the right to receive at this time an itemization of the Amount Financed.

I want an itemization. I do not want an itemization.

Your payment schedule will be:

Number of Payments	Amount of Payments	When Payments Are Due
36	\$ 211.23	Monthly beginning 6-1-81

Insurance
Credit life insurance and credit disability insurance are not required to obtain credit, and will not be provided unless you sign and agree to pay the additional cost.

Type	Premium	Signature
Credit Life	\$ 120 -	I want credit life insurance. <i>Alice Green</i>
Credit Disability		I want credit disability insurance. _____
Credit Life and Disability		I want credit life and disability insurance. _____

Security: You are giving a security interest in:
 the goods being purchased.

Filing fees \$ 12.50 Non-filing insurance \$ _____

Late Charge: If a payment is late, you will be charged \$10.

Prepayment: If you pay off early, you
 may will not have to pay a penalty.
 may will not be entitled to a refund of part of the finance charge.

See your contract documents for any additional information about nonpayment, default, any required repayment in full before the scheduled date, and prepayment refunds and penalties.

I have received a copy of this statement.
Alice Green 5-1-81
 Signature Date

means an estimate

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